SIEMENS

SCE Training Curriculum for Integrated Automation Solutions Totally Integrated Automation (TIA)

Siemens Automation Cooperates with Education

TIA Portal Module 090-020

WinCC Runtime Advanced Services

Cooperates with Education

Automation

SIEMENS

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Suitable SCE trainer packages for these training curriculums

SIMATIC controllers

- **SIMATIC S7-300 with CPU 314C-2PN/DP**
  Order no.: 6ES7314-6EH04-4AB3
- **SIMATIC S7-300 with CPU 314C-2PN/DP (upgrade)**
  Order no.: 6ES7314-6EH04-4AB4
- **SIMATIC S7-300 with CPU 315F-2PN/DP**
  Order no.: ES7315-2FH14-4AB1
- **SIMATIC ET 200S with CPU IM151-8 F PN/DP**
  Order no.: 6ES7151-8FB00-4AB1

SIMATIC HMI

- **SIMATIC TP700 Comfort Panel - Color**
  Order no.: 6AV2133-4AF00-0AA0

SIMATIC STEP 7 software for training

- **SIMATIC STEP 7 Professional V11 - Single license**
  Order no.: 6ES7822-1CC01-4YA5
- **SIMATIC STEP 7 Professional V11 - Classroom license (up to 12 users)**
  Order no.: 6ES7822-1AA01-4YA5
- **SIMATIC STEP 7 Professional V11 - Upgrade license (up to 12 users)**
  Order no.: 6ES7822-1AA01-4YE5
- **SIMATIC STEP 7 Professional V11 - Student license (up to 20 users)**
  Order no.: 6ES7822-1AC01-4YA5

Please note that these trainer packages may be replaced by successor trainer packages.
An overview of the currently available SCE packages is provided under: siemens.com/sce/tp

Advanced training

Please get in touch with your regional SCE contact for information on regional Siemens SCE advanced training
siemens.com/sce/contact

Additional information regarding SCE

siemens.com/sce

Information regarding usage

This SCE training curriculum for the end-to-end automation solution Totally Integrated Automation (TIA) was prepared for the program "Siemens Automation Cooperates with Education (SCE)" specifically for educational purposes for public educational institutions and R&D facilities. Siemens AG does not make any guarantee regarding its contents.

This document may only be used for initial training on Siemens products/systems. That is, it may be copied in whole or in part and handed out to participants for use within the context of their education. Distribution and reproduction of this training curriculums and disclosure of its contents are permitted within public education and further education institutions for educational purposes.

Any exceptions require written consent from the Siemens AG contact person: Mr. Roland Scheuerer roland.scheuerer@siemens.com.

Offenders will be liable for damages. All rights reserved, including those relating to translation and in particular those rights created as a result of a patent being granted or utility model being registered.
Use for industry customers is expressly prohibited. We do not consent to any commercial use of the training curriculum.

We would like to thank Michael Dziallas Engineering and all those involved for their support in creating this training curriculum.

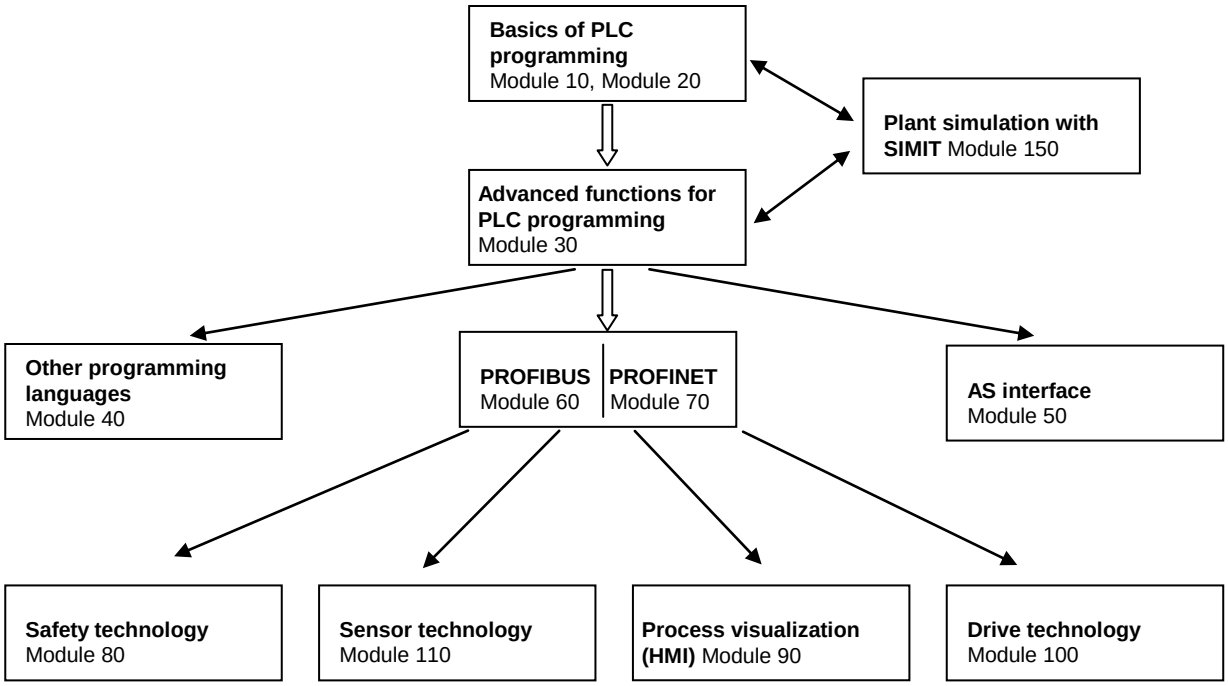
PAGE:

1. Preface 4
2. Notes on programming the SIMATIC S7-300 6
2.1 SIMATIC S7-300 automation system 6
2.2 STEP 7 Professional V11 (TIA Portal V11) programming software 6
2.3 Operator control and monitoring with WinCC 7
3. Project description 8
3.1 Hardware configuration 8
3.2 Station description 9
3.3 Previous configuration 10
3.4 Expanded configuration and task 10
4. Inserting an Operator PC in the Ink Mixing Station project 11
4.1 Loading and re-saving a project template 12
5. Configuring on the operator PC 21
5.1 SIMATIC HMI HTTP connection 22
5.2 Tags on the PC-System_Advanced 24
5.3 Configuring the overview screen 25
5.4 Starting the PC-System_Advanced in Runtime 29
5.5 Trend view of the ink mixing station 30
5.6 Trend view in runtime 35
6. Remote Control of the TP700 Comfort with Sm@rtOptions 36
6.1 "Sm@rtServer" Runtime Service 37
6.2 Sm@rtClient application on the PC 38
6.3 Sm@rtClient via Web browser 40
7. Sm@art Options on the Operator_PC-System 43
7.1 Configuring the Sm@rtClient view 43
7.2 Sm@artClient view in Runtime 45
7.3 Configuring the HTML browser 46
7.4 HTML browser in Runtime 48

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

1. Preface

Regarding its content, module 090-020 is part of the **'Process visualization'** training unit and demonstrates how to configure WinCC visualization between the TP700 Panel and a PC system.



Learning objective:

This module describes the runtime services of the TP700 Panel and other functions of the WinCC Advanced V11 software.

Typical tasks are performed at a sample plant.

- "Open" and "Save as" of a STEP 7 project
- Inserting an HMI station
- Runtime services of the TP700 Comfort Panel
- Configuring display and operating objects on the operator PC
- HMI HTTP protocol
- Trend view
- Sm@rt Options

Requirements:

To successfully work through this module, the following knowledge is required:

- Proficiency in working with Windows
- Basics of PLC programming with the TIA Portal
  (for example, module 020-010 – 'Startup' Programming the SIMATIC S7-300 with TIA Portal V11)
- Blocks for SIMATIC S7-300
  (for example, Module 030-010 – Block Types for SIMATIC S7-300)
- WinCC Advanced with Runtime and TP700 Comfort Panel
  (e.g. Module 090-010 – S7-300 HMI TP700)

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Required hardware and software

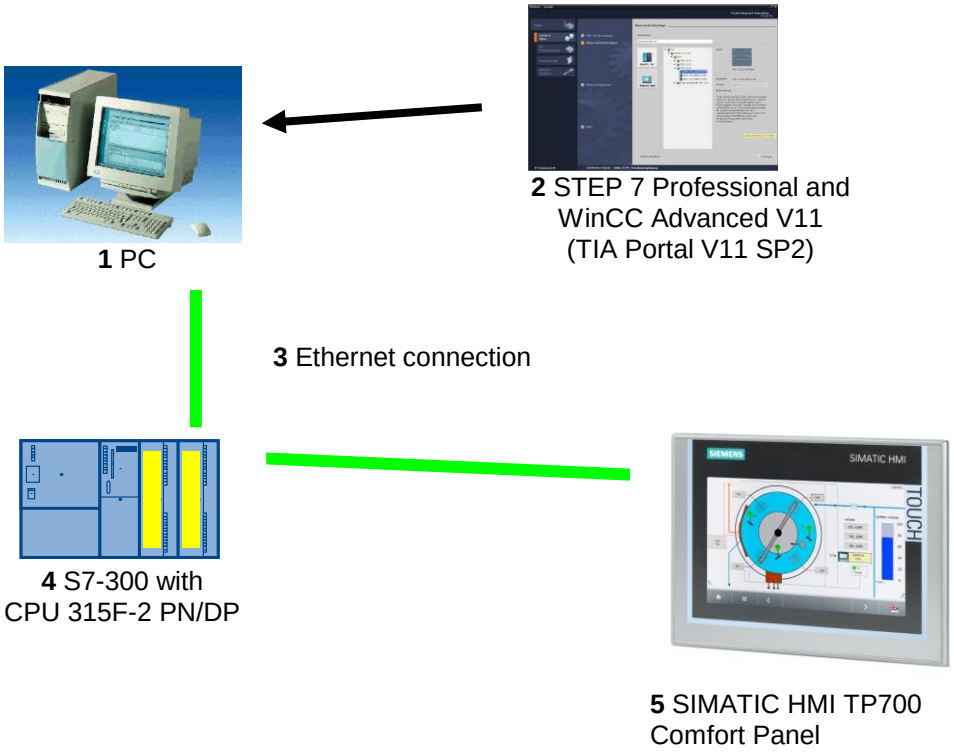
1 PC Pentium 4, 1.7 GHz 1 (XP) – 2 (Vista) GB RAM, approx. 2 GB of free hard disk space
Operating system Windows XP Professional SP3 / Windows 7 Professional / Windows 7 Enterprise / Windows 7 Ultimate / Windows 2003 Server R2 / Windows Server 2008 Premium SP1, Business SP1, Ultimate SP1

2 Software: STEP 7 Professional V11 SP2 (Totally Integrated Automation (TIA) Portal V11) and WinCC Advanced V11 SP2

3 Ethernet connection between the PC and CPU 315F-2 PN/DP

4 SIMATIC S7-300 PLC, e.g., CPU 315F-2PN/DP with 16DI/16DO signal module.
The inputs must be fed out to a control panel.

5 SIMATIC HMI TP700 Comfort Panel


1 PC
2 STEP 7 Professional and WinCC Advanced V11 (TIA Portal V11 SP2)
3 Ethernet connection
4 S7-300 with CPU 315F-2 PN/DP
SIMATIC HMI
TOUCH
5 SIMATIC HMI TP700 Comfort Panel

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

2. Notes on programming the SIMATIC S7-300

2.1 SIMATIC S7-300 automation system

The SIMATIC S7-300 automation system is a modular microcontroller system for the low and medium performance range.
A comprehensive range of modules is available to optimally adapt the system to the automation task
The S7 controller consists of a power supply, a CPU, and input and output modules for digital and analog signals.
If necessary, communication processors and function modules are also used for special tasks such as stepper motor control.

The programmable logic controller (PLC) uses the S7 program to monitor and control a machine or a process. The S7 program scans the I/O modules via input addresses (%I) and addresses their output addresses (%Q).

The system is programmed with the STEP 7 software.

2.2 STEP 7 Professional V11 (TIA Portal V11) programming software

The STEP 7 Professional V11 (TIA Portal V11) software is the programming tool for the following automation systems:

- SIMATIC S7-1200
- SIMATIC S7-300
- SIMATIC S7-400
- SIMATIC WinAC

STEP 7 Professional V11 provides the following functions for plant automation:

- Configuration and parameter assignment of the hardware
- Specification of the communication
- Programming
- Testing, commissioning, and servicing with operational/diagnostic functions
- Documentation
- Creation of visualizations for SIMATIC Basic Panels using the integrated WinCC Basic software.
- Visualization solutions for PCs and other panels can also be created with other WinCC software packages

Support is provided for all functions in a comprehensive online help system.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

2.3 Operator control and monitoring with WinCC

System description

Since processes are becoming more and more multi-layered and the demands regarding the functionality of machines and plants are rising, the operator needs a powerful tool to control and monitor production systems. An HMI system (Human Machine Interface) represents the interface between the human being (operator) and the process (machine/system). The controller actually controls the process. That is, there is an interface between the operator and WinCC (on the HMI device) and an interface between WinCC and the controller.
WinCC is the software to handle all necessary configuring tasks. WinCC Advanced V11 Simulation is the software for process visualization.

WinCC handles the following tasks:

• Representing the process

The process is mapped to the HMI device. If, for example, a state changes in the process, the display is updated on the HMI device.

• Operating the process

The operator can use a graphic user interface to operate the process. The operator, for example, can enter a setpoint for the controller, or start a motor.

• Generating alarms

If critical process states occur in the process, an alarm is triggered automatically; for example, if a specified limit is exceeded.

• Logging process values and alarms
The HMI system is able to log alarms and process values. Thus, the process can be documented and older production data can later be accessed.

• Documenting process values and alarms

Alarms and process values can be read out by the HMI system as a log. After a shift, for example, you can have the production data read out.

• Managing process parameters and machine parameters

The HMI system is able to store parameters for processes and machines in recipes. These parameters can, for example, be transferred from the HMI device to the controller in one step in order to change production to another product type.

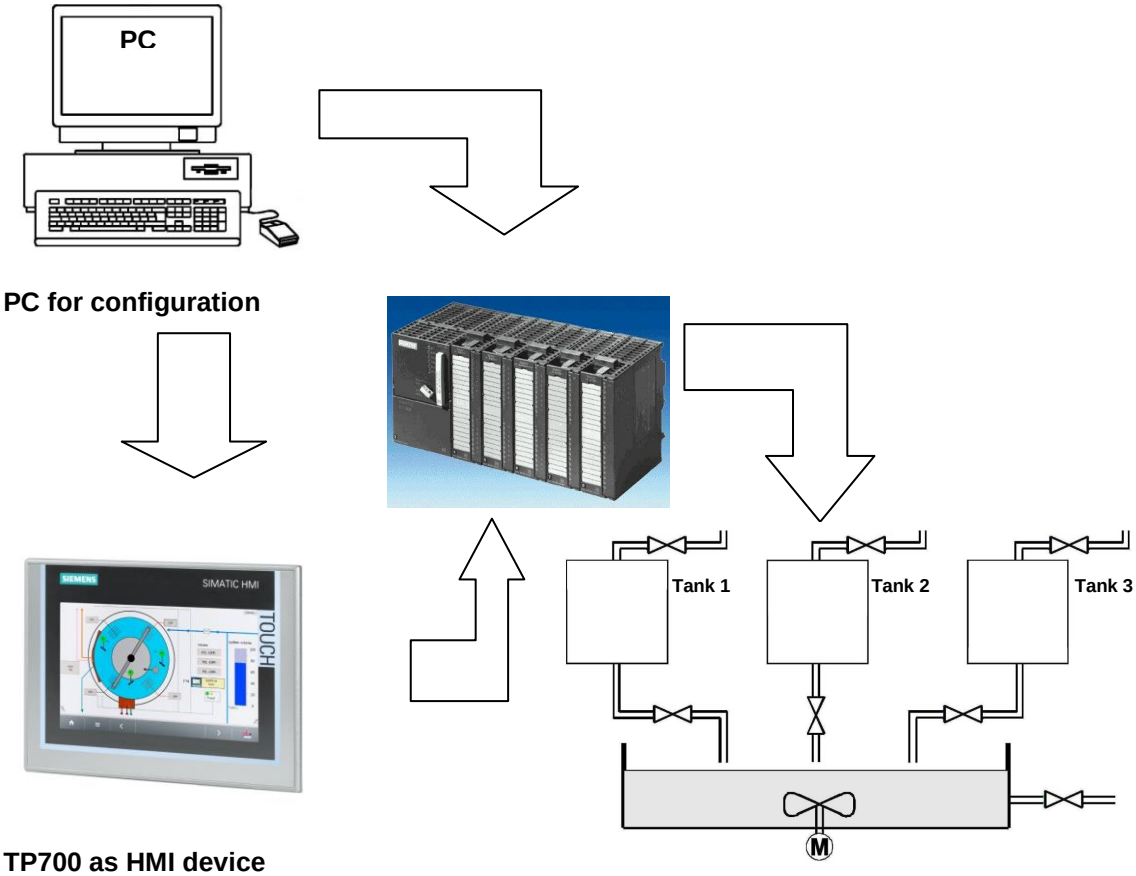
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

3. Project description

3.1 Hardware configuration

In our sample program for an ink mixing station we use a programming device with WinCC Advanced V11 and the WinCC Advanced V11 Runtime.
The ink mixing station is controlled using a SIMATIC S7-300. The operator uses a Touch Panel (TP700) to operate the process via the graphical interface.
The operator, for example, can enter a setpoint for the controller, or start a motor.

The programming device, the SIMATIC S7-300 controller and the TP700 operator panel are interconnected via the Ethernet interface.
The ink mixing station is connected to the controller via digital and analog inputs and outputs.

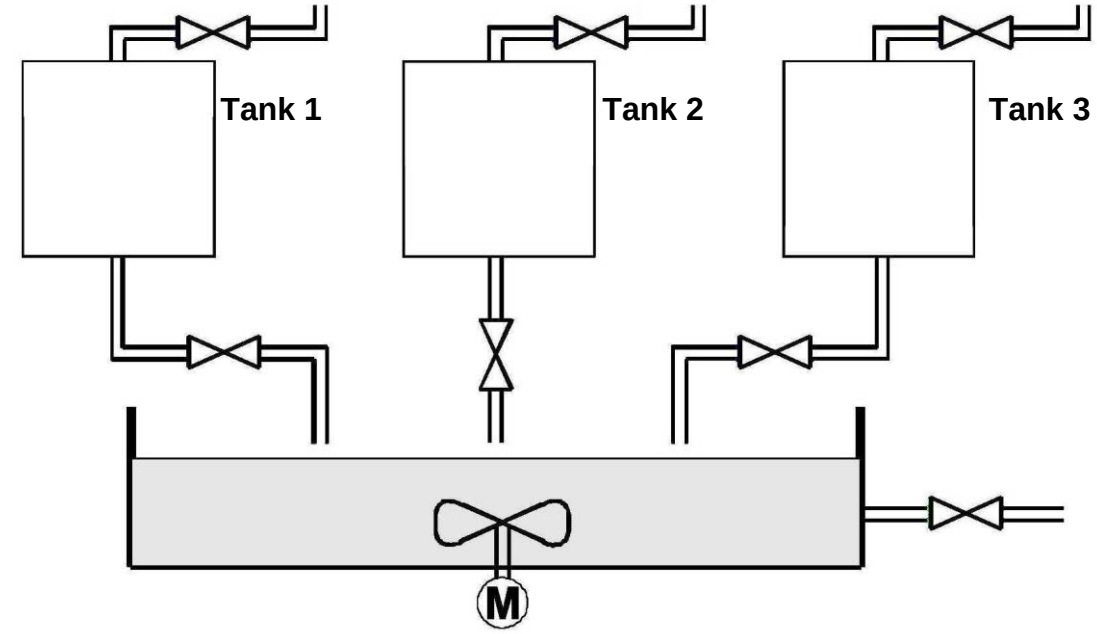


PC for configuration

TP700 as HMI device

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

3.2 Station description



An ink mixing station is controlled using a SIMATIC S7-300 in automatic or in manual mode. In the 'Automatic' mode, the three tanks are filled using a two-point control mechanism.
At minimum fill level the supply valve of the corresponding tank is opened automatically and only closed once the maximum fill level is reached.

The preset program is run when the Start button is pressed.
First, the drain valves are opened and the corresponding target quantities are filled into the container from the separate tanks.

After closing the drain valves, the mixer motor is started.
At the end of the mixing period and after a short rest period, the drain valve of the container opens and the finished color mixture is drained.
The start function is enabled as soon as the container is empty.
The start button lamp is lit and a new color mixture can be started.

In "Manual" mode, the automatic drain is terminated; all valves and the mixer motor can then be operated manually.
The lamps in the buttons for manual operation are lit.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

3.3 Previous configuration

The following requirements are to be met with the help of the Panel.

- It is now possible to operate the ink mixing station via the Panel as well.
- The fill levels of the tanks and of the container are to be indicated as bars and also as numerical value.
- The movement of the mixer motor is to be represented graphically.
- The target quantities are to be entered using the panel.
- The minimum and maximum fill levels of the three tanks can be specified on separate tank screens.
- The Panel can also be used to change operating modes.
- The finished color mixtures are saved as recipe in the Panel.
- The fill levels are monitored and alarms are generated in the event of danger.
- A password must be entered in order to operate the ink mixing station.
- The SIMATIC S7-300 controller communicates with the TP700 Comfort Panel and monitors it via PROFINET.

3.4 Expanded configuration and task

On the programming device, the STEP 7 Professional V11 configuration software and WinCC Advanced V11 are used to create an additional process visualization for an operator PC.

The operator PC communicates with the operator panel via **tags** using an HMI HTTP connection. The S7-300 controller is accessed solely via the operator panel.

The value of a tag in the memory area (address) of the controller is read by the operator panel and transferred via an HMI HTTP connection to the operator PC.

The ink mixing station is remotely monitored and remotely operated using the visualization and the operating screens.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

4. Inserting an Operator PC in the Ink Mixing Station project

The software is used for project management and programming
'Totally Integrated Automation Portal V11'.

Components such as control, visualization, and networking of the automation solution are created, assigned parameters, and programmed here using a standard interface.
Online tools are available for the error diagnostics.

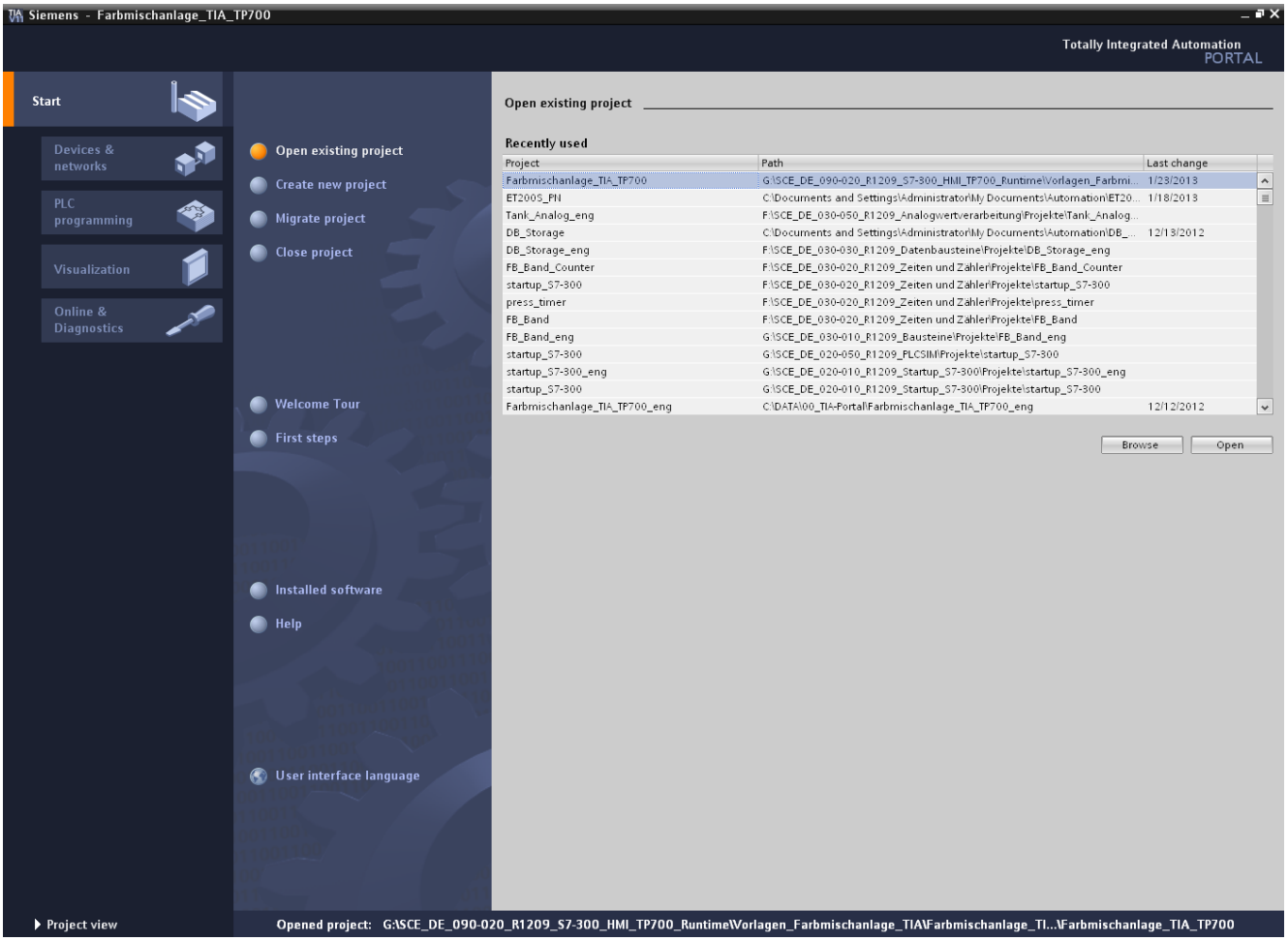
In the following section a project is to be opened for SIMATIC S7-300, the project is to be stored under a different name and adapted to the new requirements.

The central tool is the **'TIA Portal V11'**, which is opened here by double-clicking.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

4.1 Loading and re-saving a project template

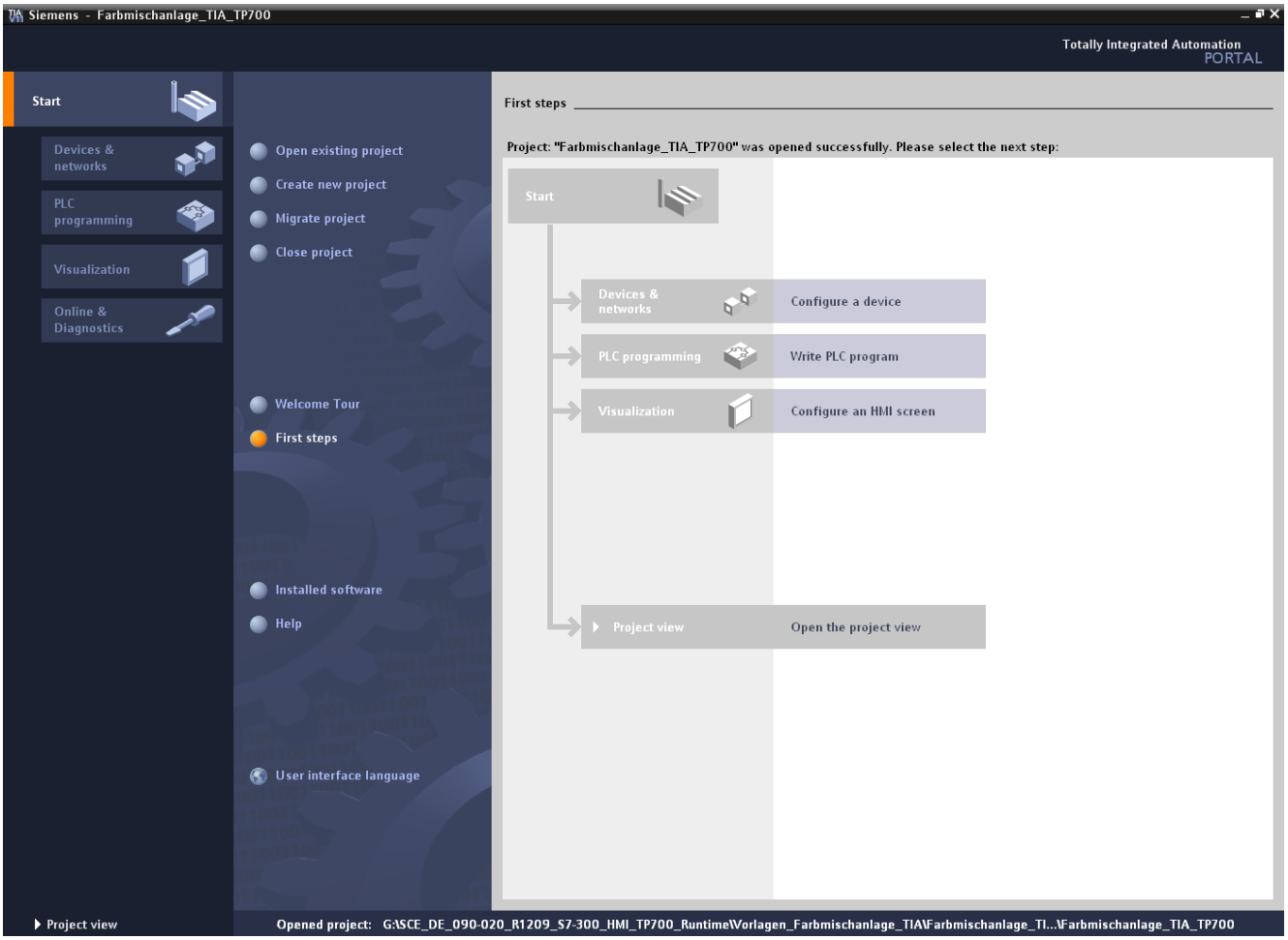
The project **"Ink mixing station_TIA_TP700"** from Module 090-010 is now opened as a template for this program.



To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

'**First steps**' for configuring are now suggested.

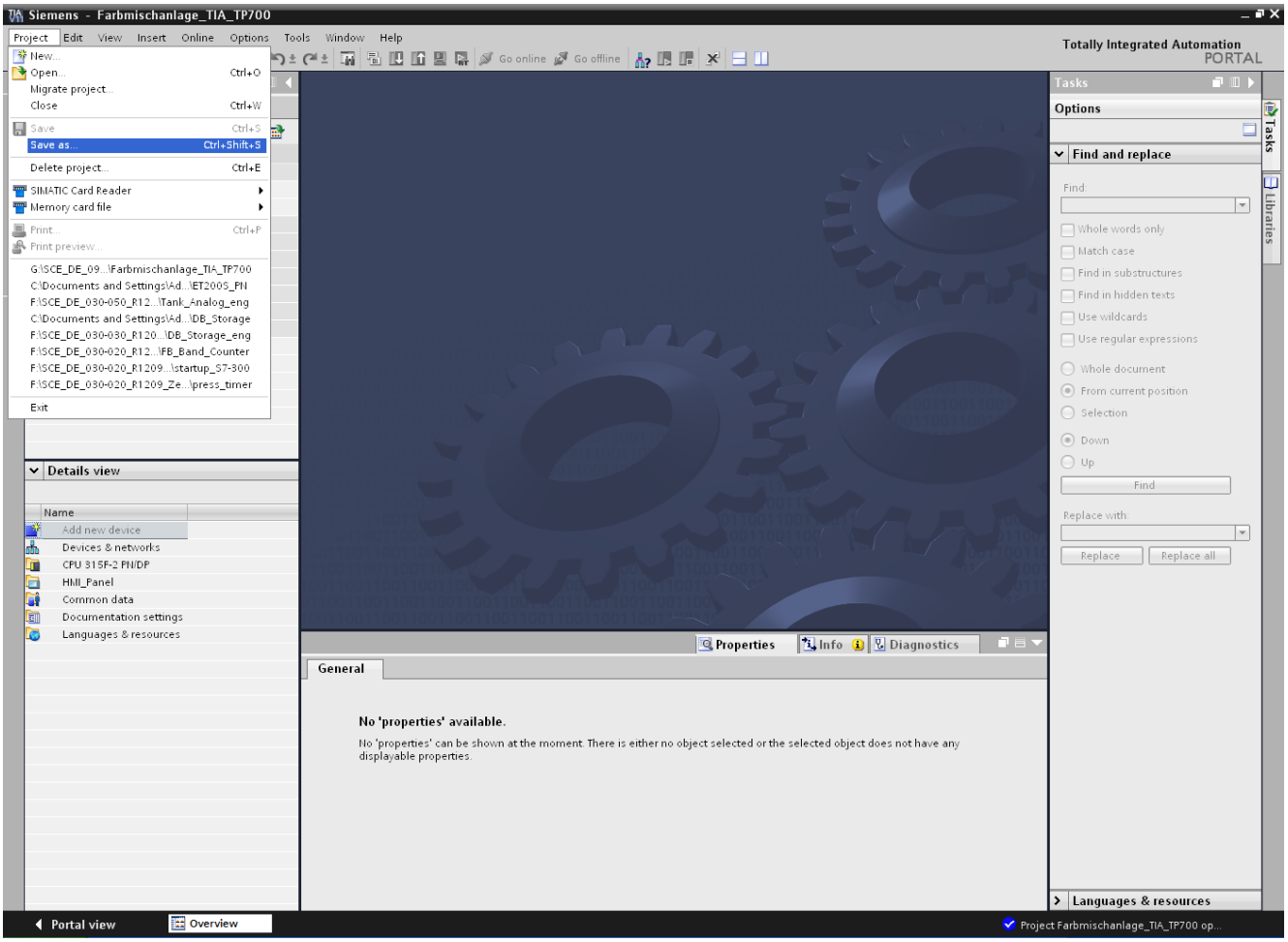
Click **'Open project view'**.



To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

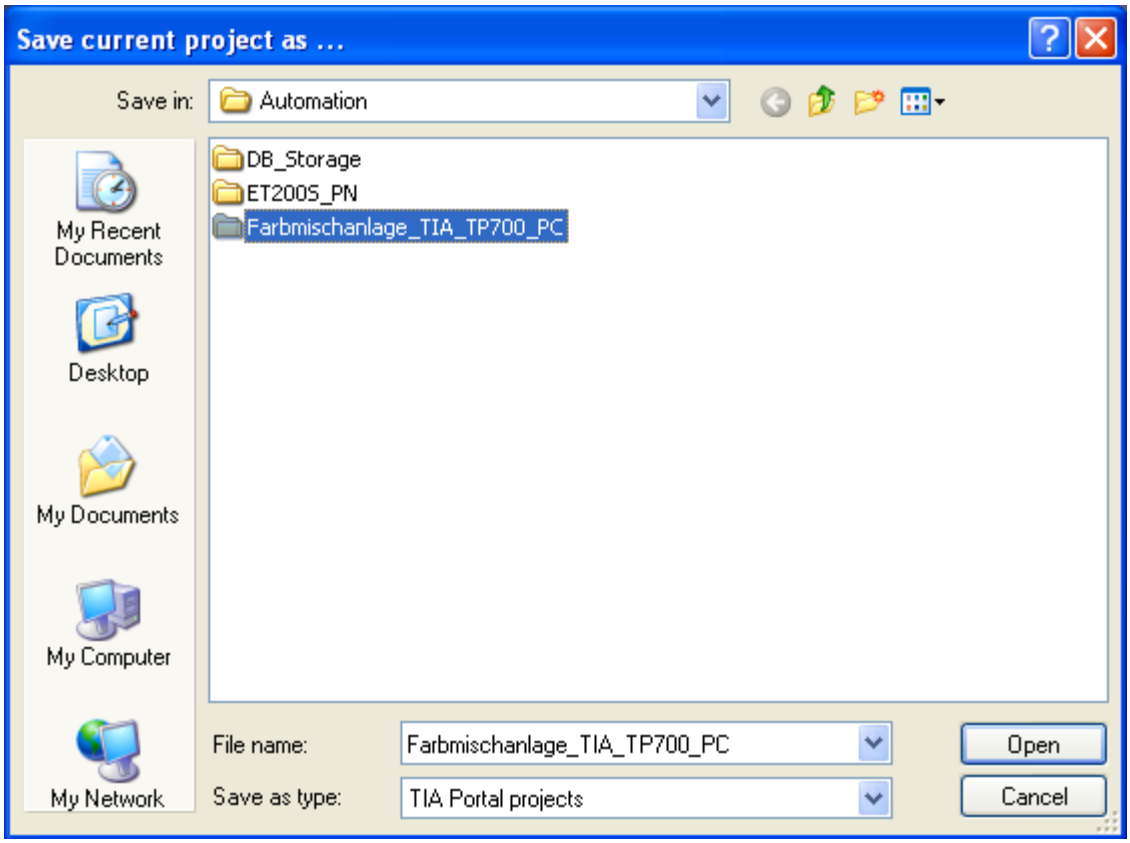
Start by saving the project under a different name.

In the **Project** menu click "**Save as**".

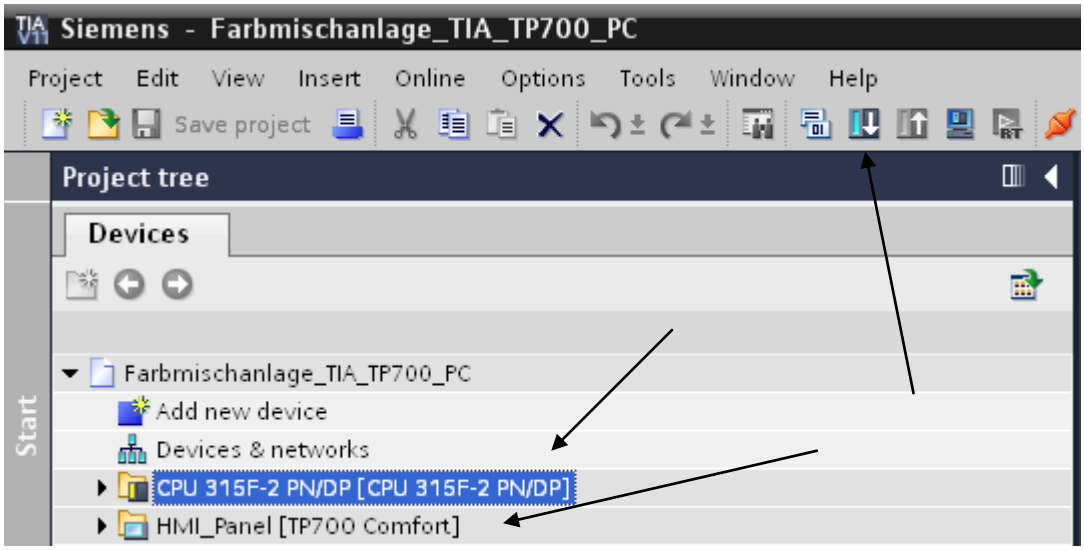


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

'Save' the project under the new name **'Ink mixing station_TIA_TP700_PC'**.



Load the project to the S7-300 controller and to the HMI_Panel [TP700 Comfort].



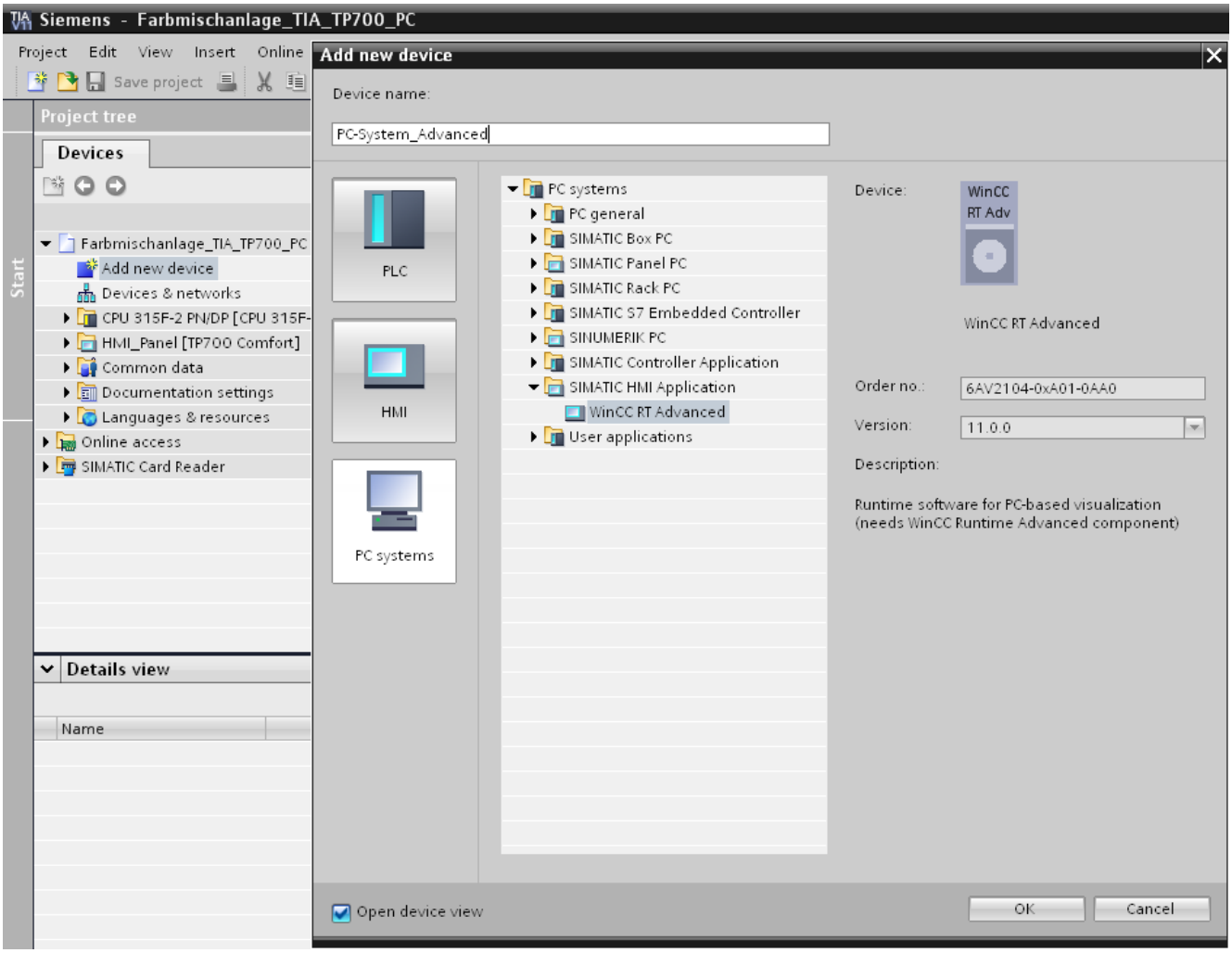
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

To create the operator PC system as WinCC RT Advanced in the project, double-click **'Add new device'** in the selection window.

Select "**WinCC RT Advanced**" under PC systems for SIMATIC HMI application.

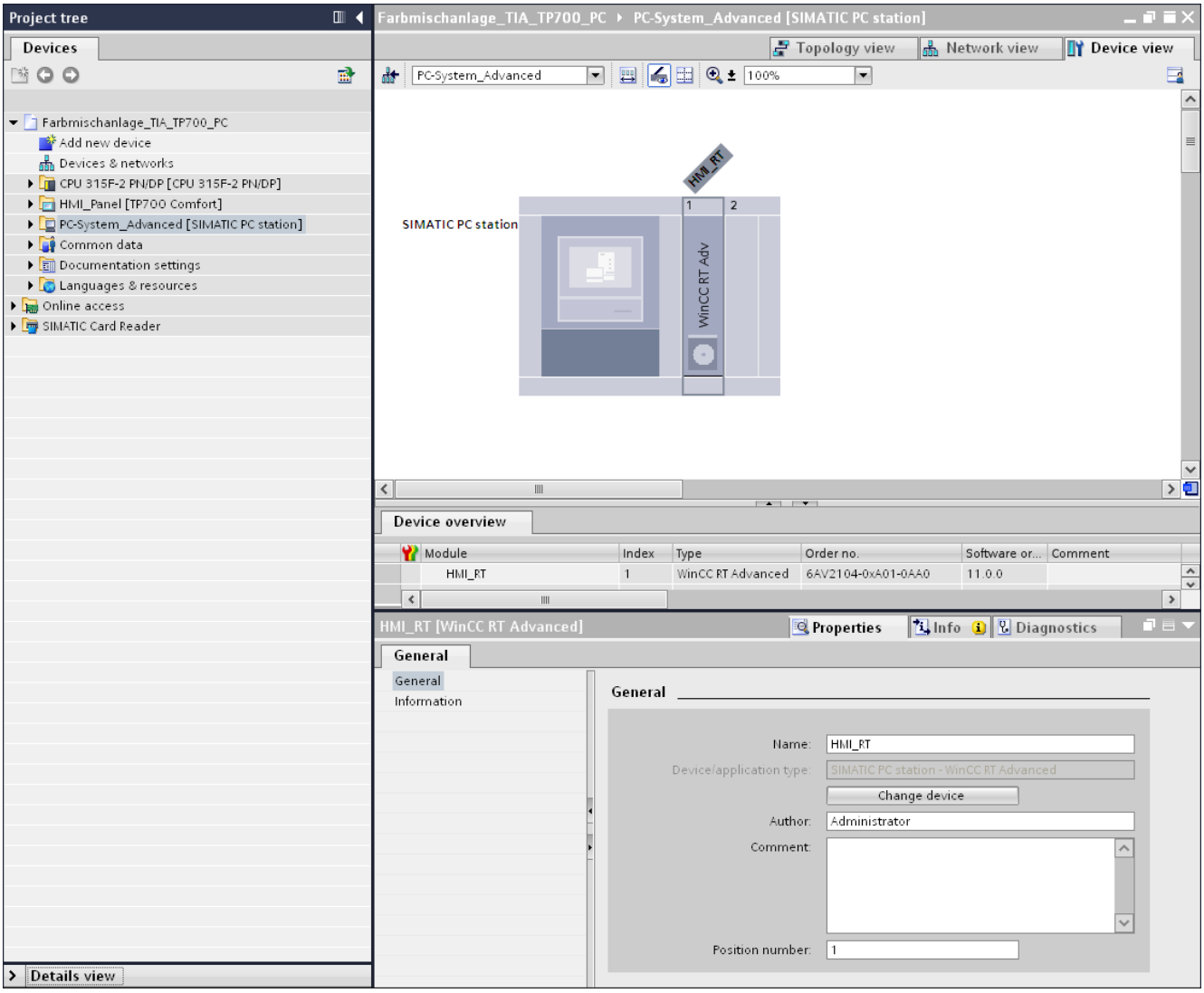
Enter the device name and select the option "**Open device view**".

Click "**OK**".



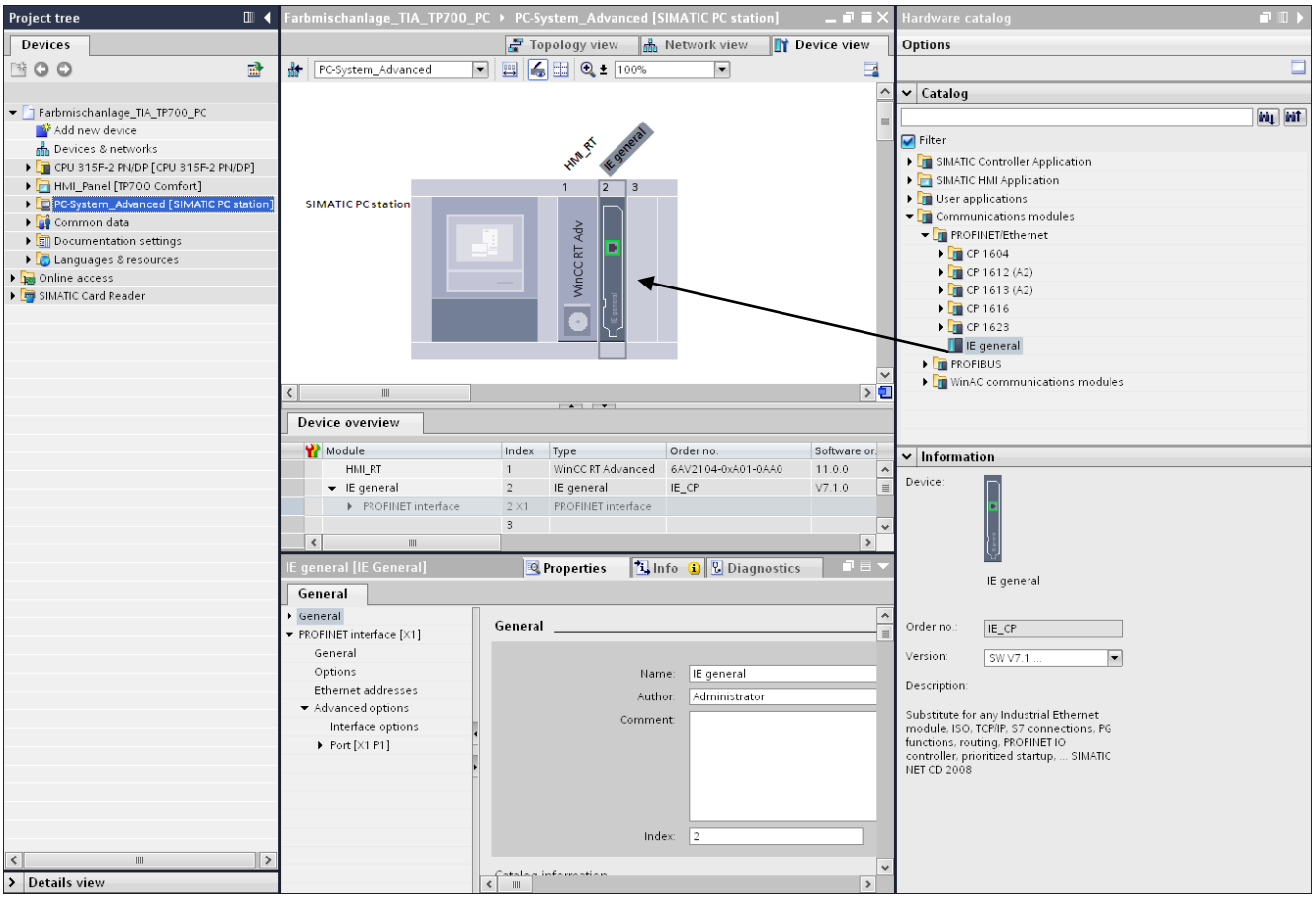
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

The new **PC-System_Advanced** you added is opened in the **device view**.



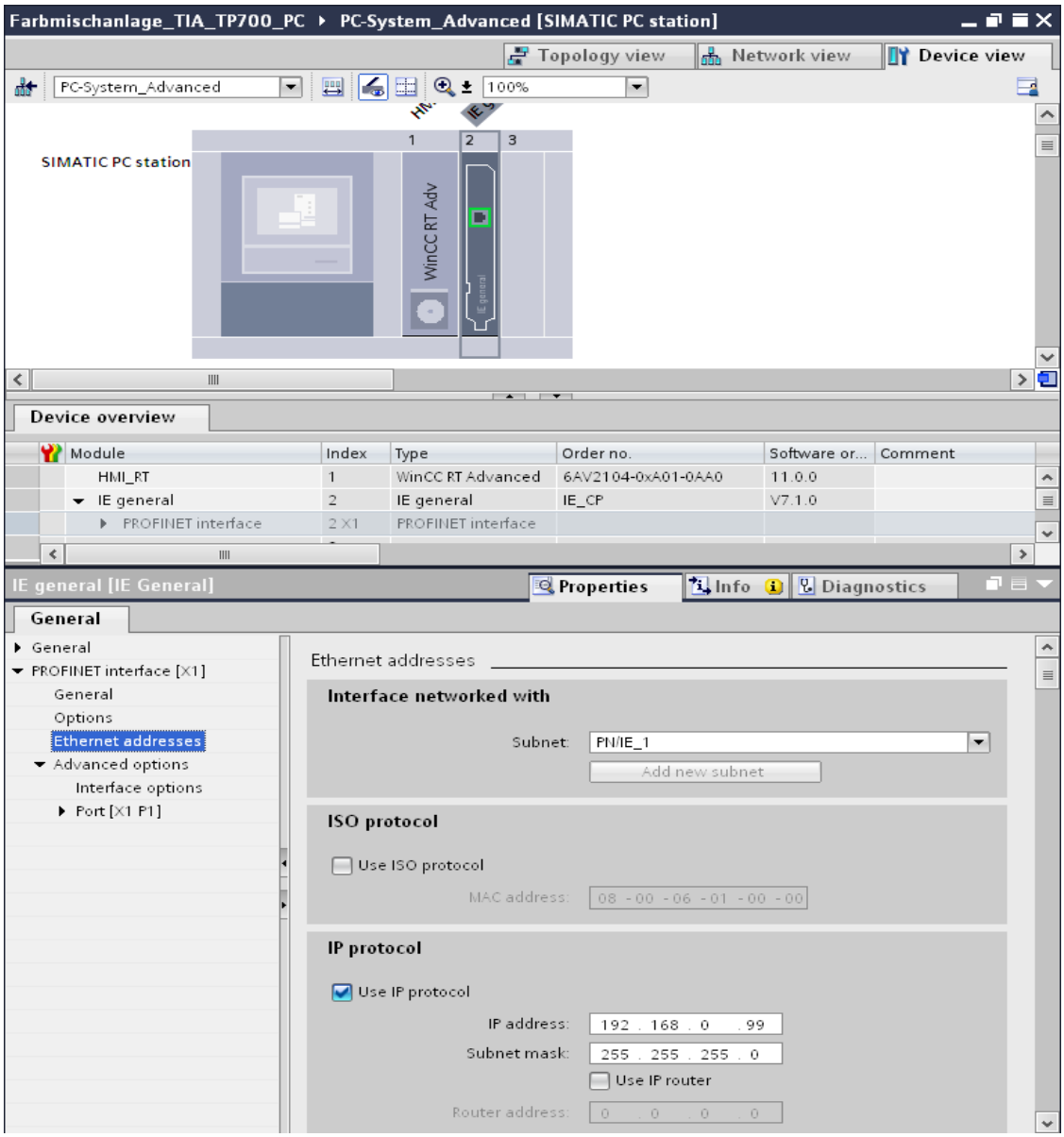
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

From the catalog, insert the communication module **IE general** in slot 2 of the operator PC."



To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

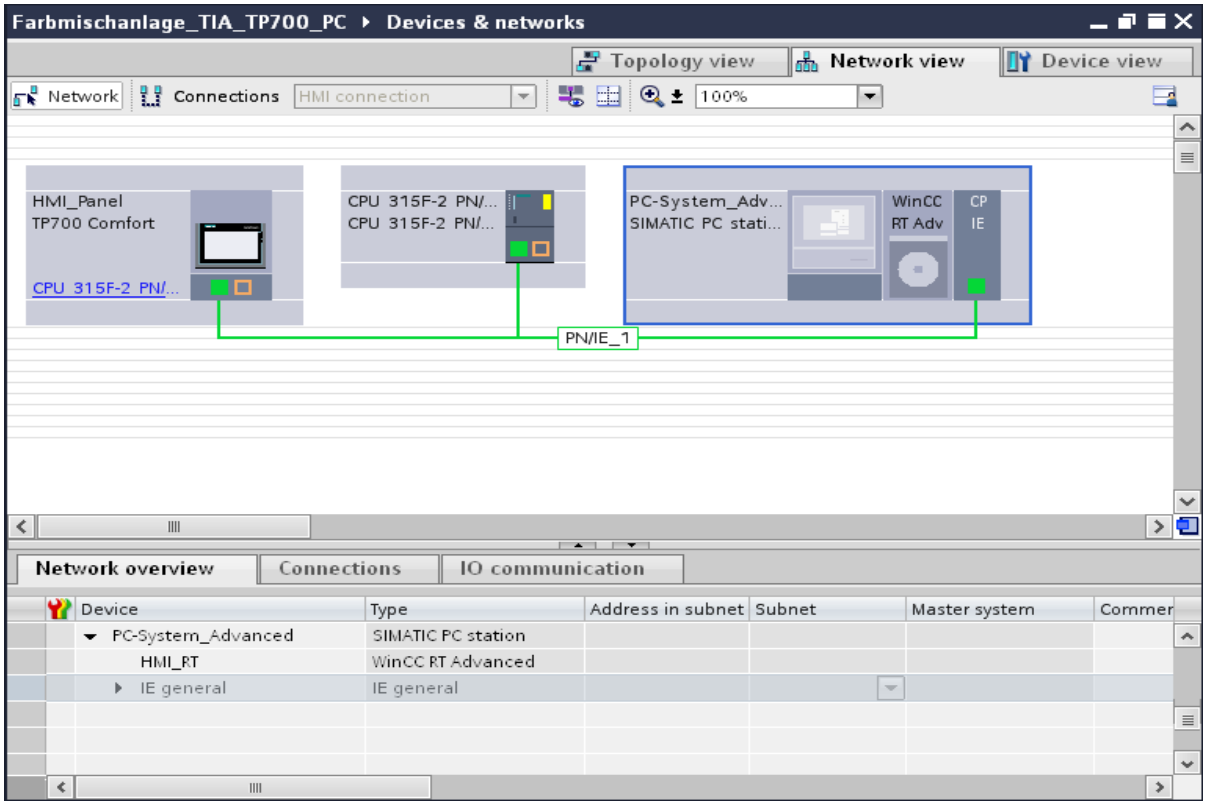
Connect the communication module with the PN/IE_1 network and enter the IP address of the operator PC. In our case, the programming device is also be operator PC.



Click the **Network view** tab.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

The **PC-System_Advanced** is connected via Ethernet interface with the HMI_Panel and the CPU.



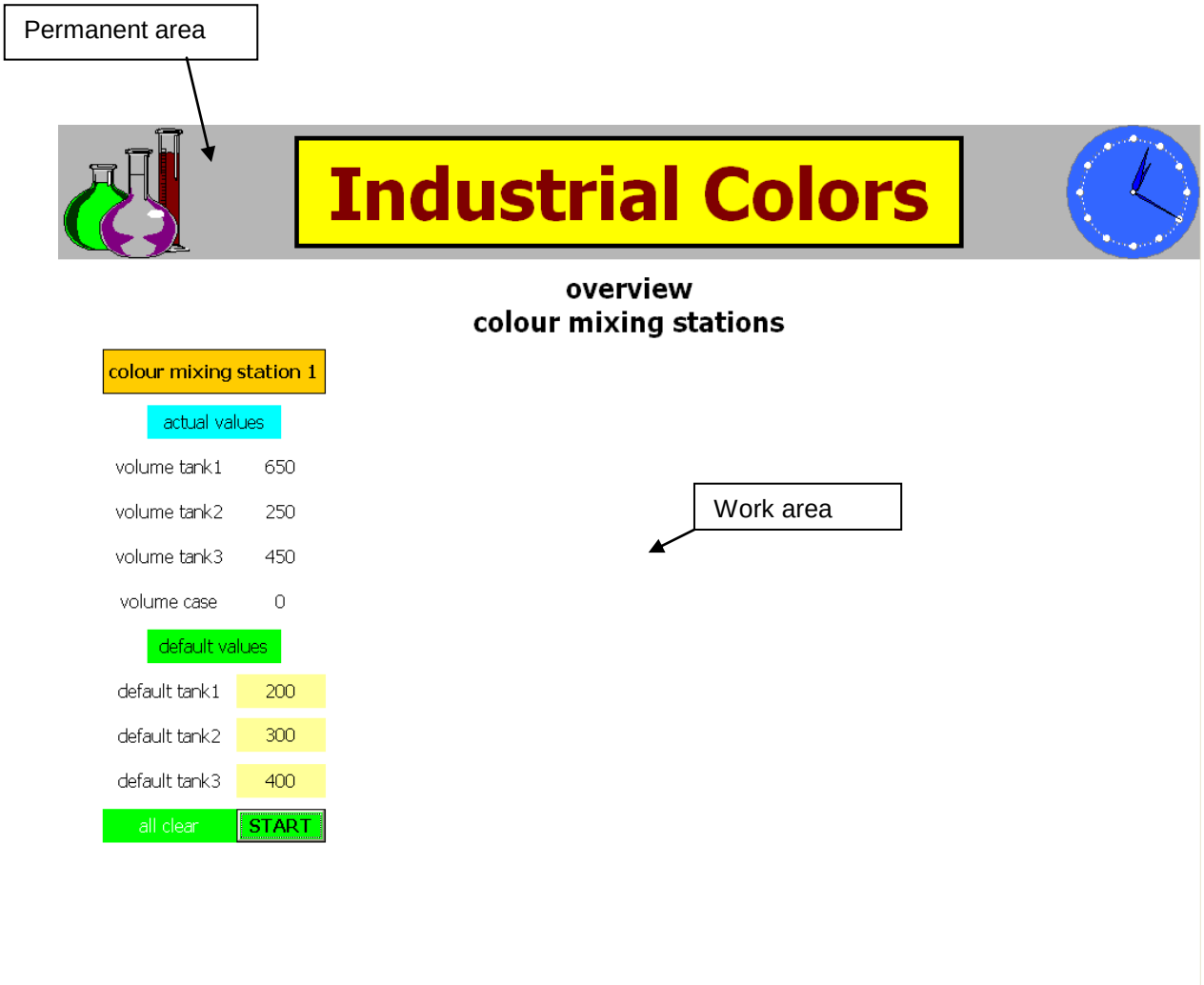
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

5. Configuring on the operator PC

The overview screen of the operator PC displays the current values of the various ink mixing stations. You can also enter default values and create color mixtures from the operator PC. This allows a remote visualization of the ink mixing stations.

A graphic, the name of the company and an analog clock are displayed in the permanent area. The screen objects to ink mixing station 1 are shown next in the work area.

You can use Softkey_F1 to end Runtime mode.



To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

5.1 SIMATIC HMI HTTP connection

The operator PC communicates with the TP700 Comfort Panel via a **SIMATIC HMI HTTP** connection.

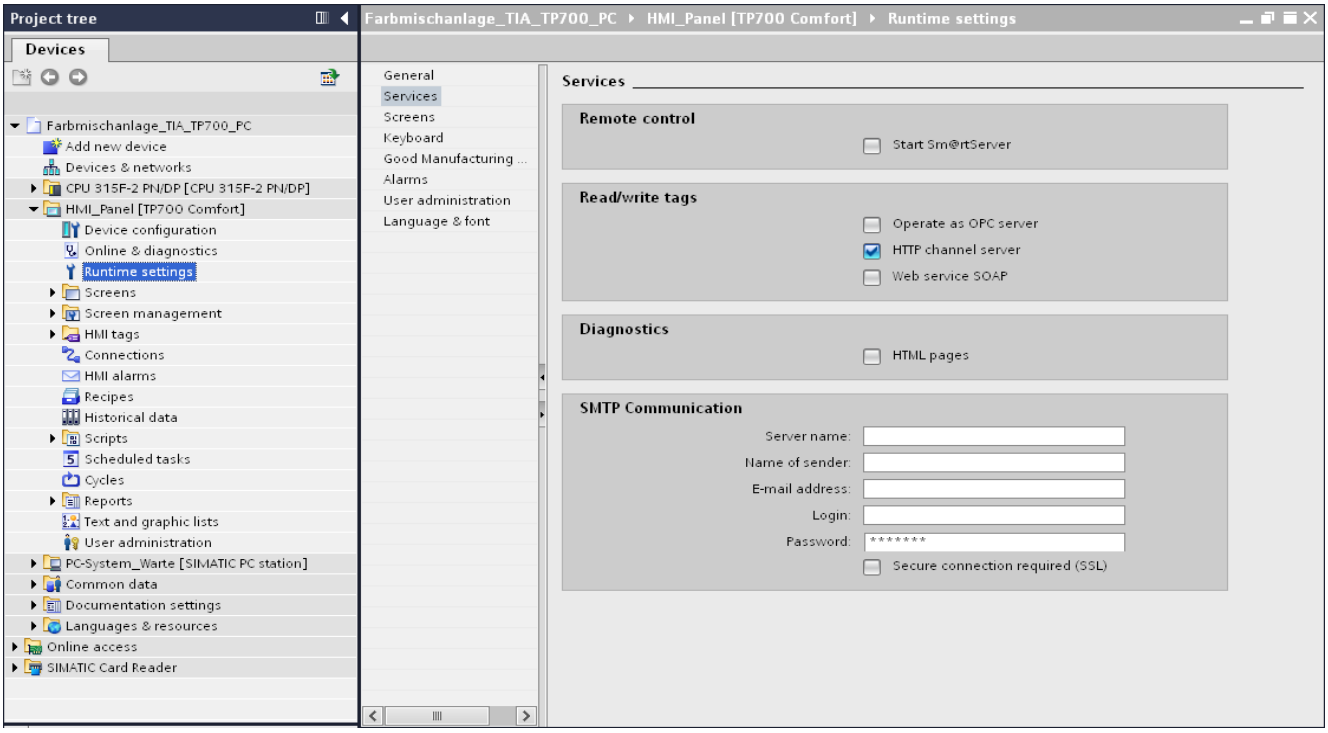
The operator PC does not need any connection to the PLC for this purpose.

The values are read and written via the panel's tags.

The advantage is that the controller is not burdened with additional communication tasks.

Setting up HTTP-Channel-Server Runtime Service on the HMI_Panel [TP700 Comfort]

Under **Runtime settings** on the HMI_Panel, select the Services option **HTTP channel server**.
Save the project and load the modified settings to the HMI_Panel.



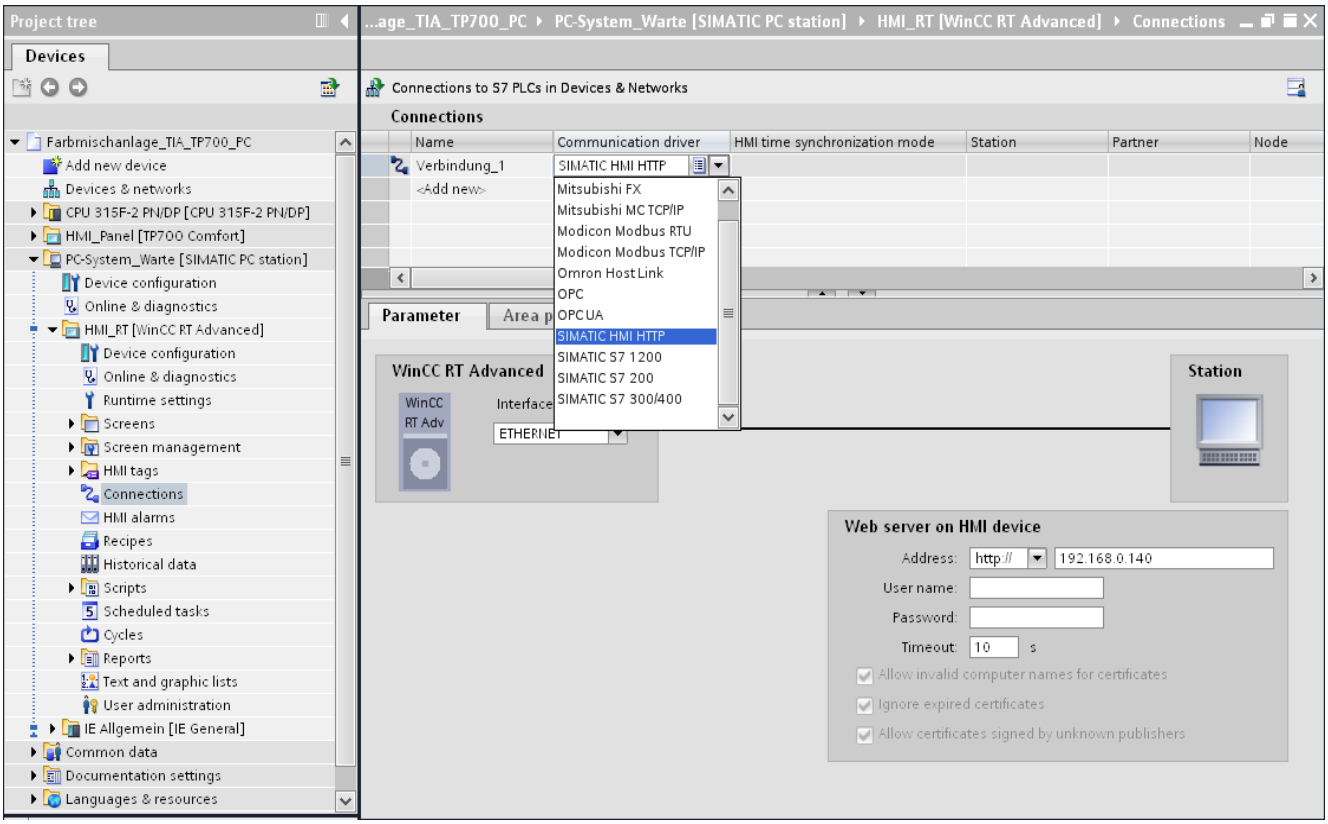
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Creating a SIMATIC HMI HTTP connection

Create a new connection to the **Operator_PC-System**.

Select **SIMATIC HMI HTTP** as communication driver.

Enter the IP address of the HMI_Panel (192.168.0.140) as Web server address.



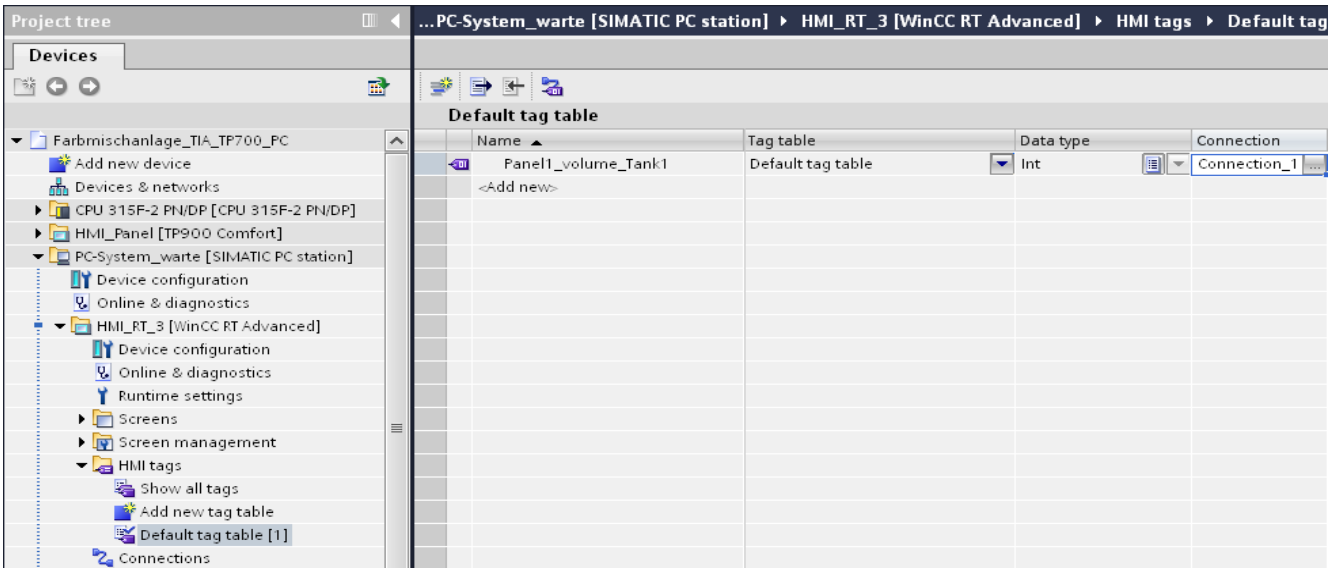
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

5.2 Tags on the PC-System_Advanced

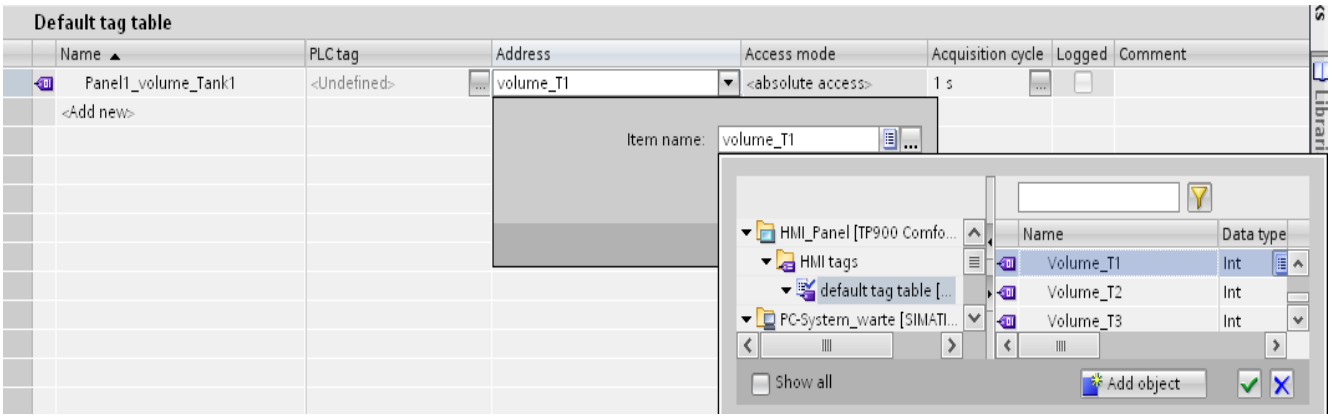
At **PC-System_Advanced** select the **Default tag table** under **HMI tags**.

Create a new tag with the name "**Panel1_volume_Tank1**".

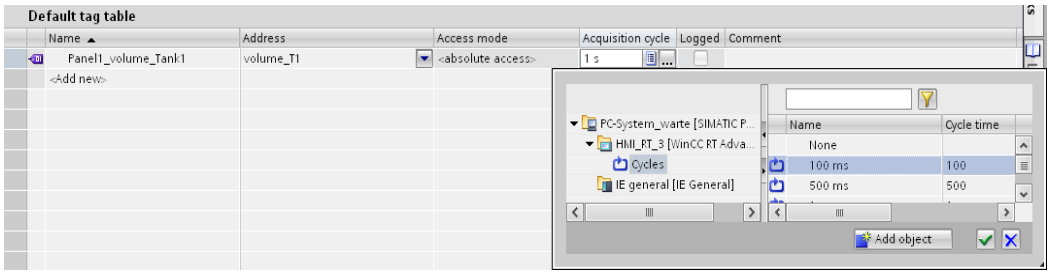
Select **volume_1** (SIMATIC HMI HTTP connection) under connection.



Under Address, select the tag **volume_T1** from the **Default tag table** of the **HMI_Panel**.



Set the acquisition cycle of the tag to **100 ms**.



To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Default tag table of PC-System_Advanced

Create the tags and assign these to the tags of the HMI_Panel.

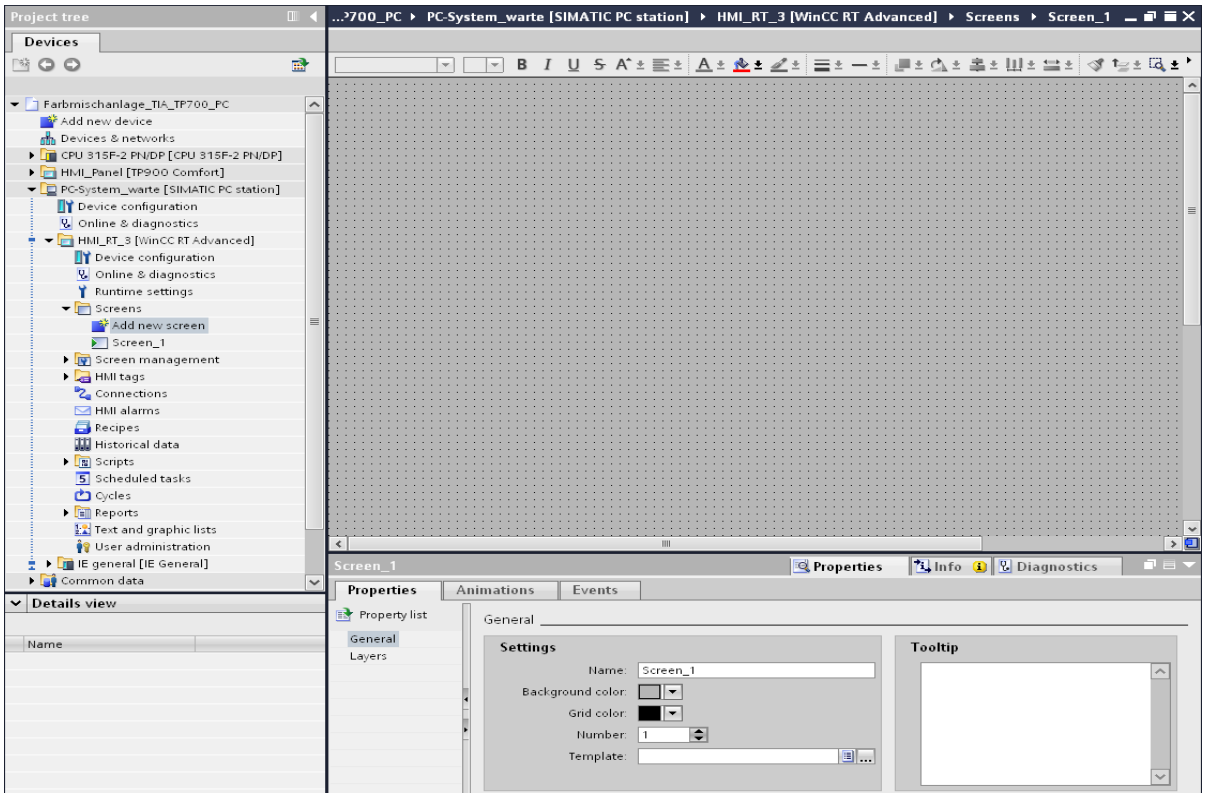
Default tag table

Name	Address	Access mode	Acquisition cycle	Logged
Panel1_Volume_Tank1	VOLUME_T1	<absolute access>	100 ms	
Panel1_Volume_Tank2	VOLUME_T2	<absolute access>	100 ms	
Panel1_Volume_Tank3	VOLUME_T3	<absolute access>	100 ms	
Panel1_Volume_Container	VOLUME_CON	<absolute access>	100 ms	
Panel1_Default_Tank1	DEFAULT_T1	<absolute access>	100 ms	
Panel1_Default_Tank2	DEFAULT_T2	<absolute access>	100 ms	
Panel1_Default_Tank3	DEFAULT_T3	<absolute access>	100 ms	
Panel1_Clearance	H1_CLEARANCE	<absolute access>	100 ms	
Panel1_Start_Prog	DB1_start_prog	<absolute access>	100 ms	

Make sure to save the project occasionally.

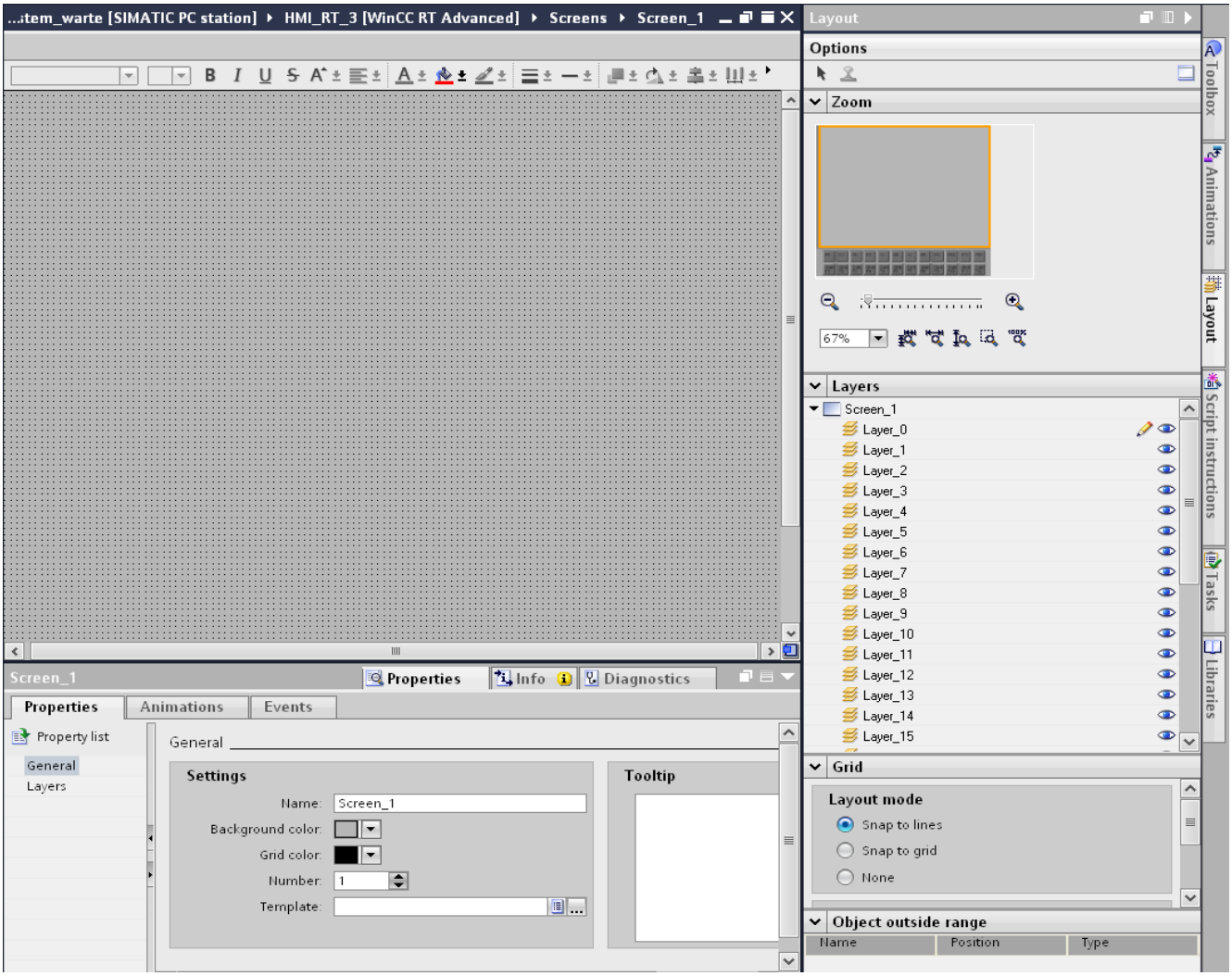
5.3 Configuring the overview screen

Create a new screen with the name "**Overview**" and change the background color to **white.**

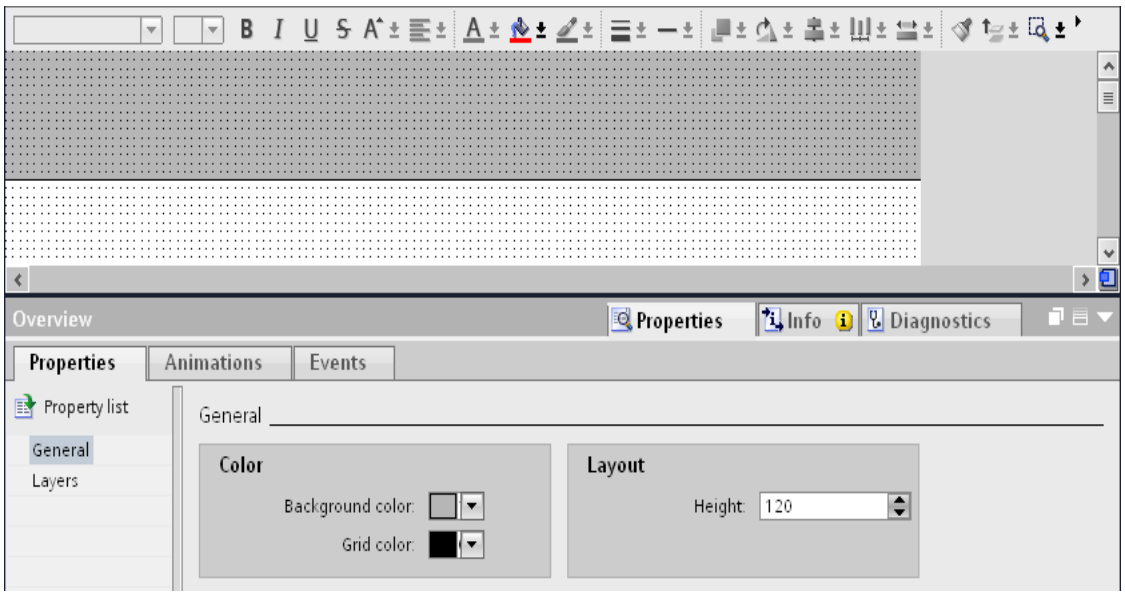


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

In the layout, change the Zoom view to the size of the screen.



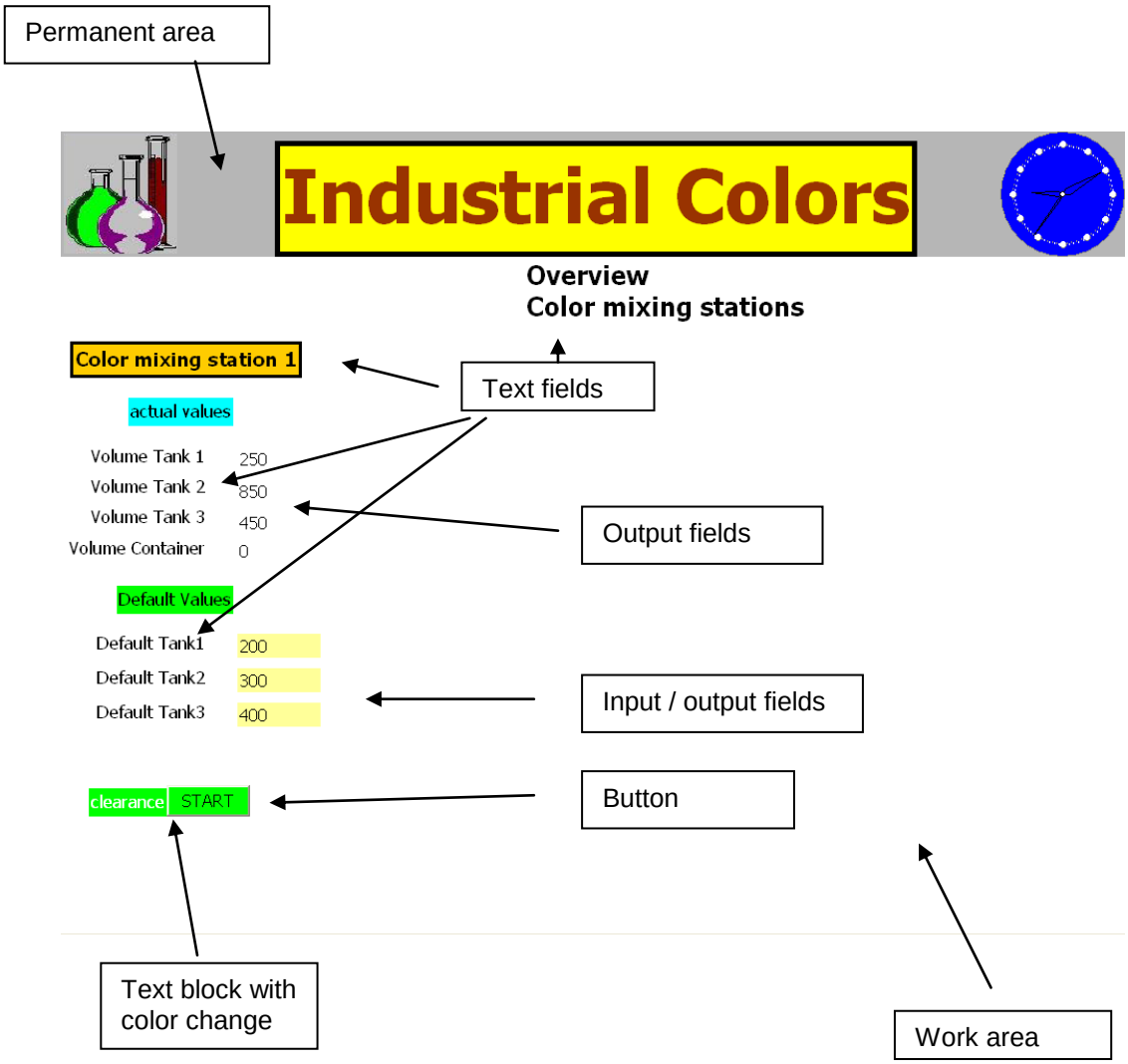
Drag the line of the permanent area (Overview) down and specify **Height: 120**.



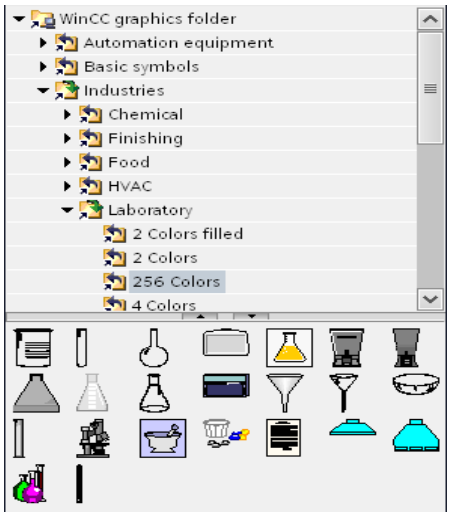
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Create the operating and display objects of the overview screen.
Connect the I/O fields and the buttons to the associated tags.

A graphic, the name of the company and an analog clock are displayed in the permanent area.
The screen objects to ink mixing station 1 are shown next in the work area.

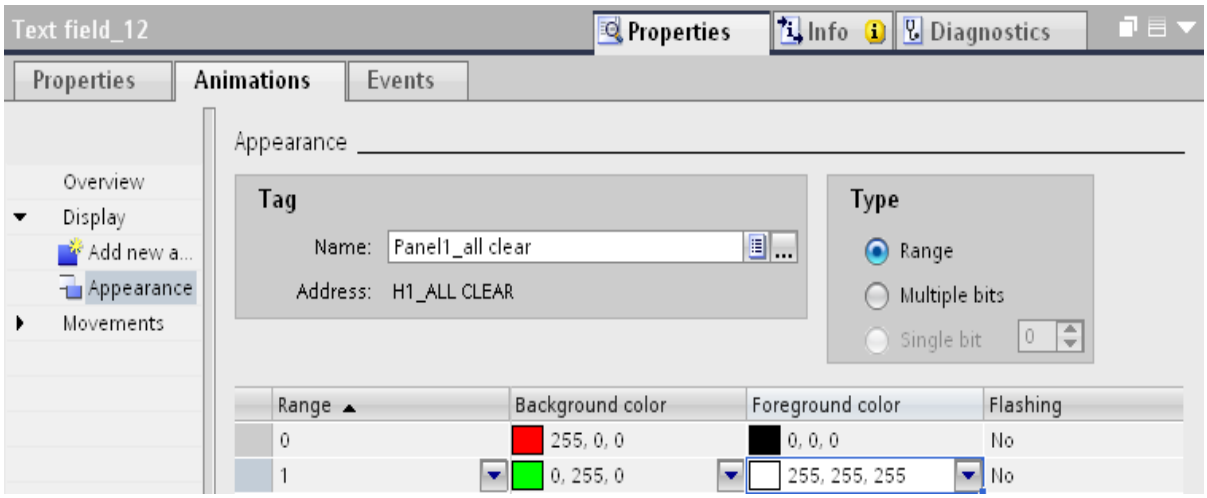


The graphics are available in the WinCC graphics folder.

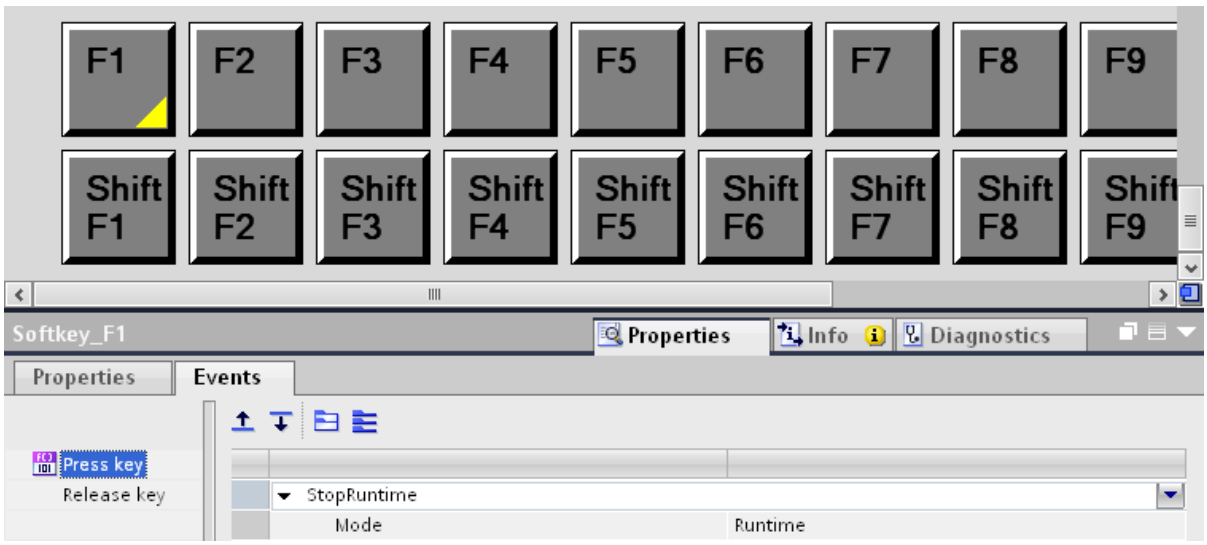


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

The text block should be animated in color when the start function is enabled.



Use the **Softkey_F1** button to end runtime mode on the operator PC.

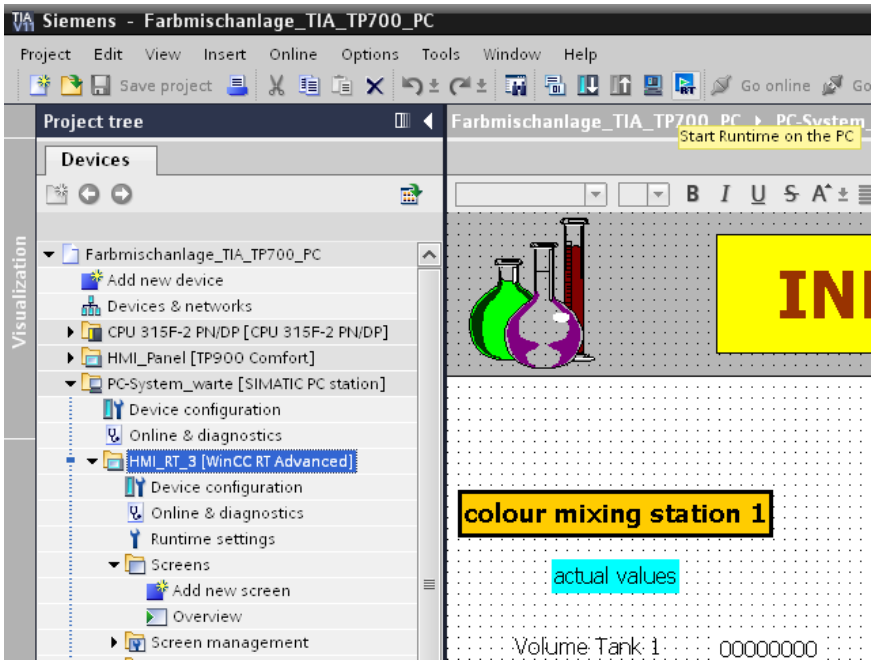


Save the project.

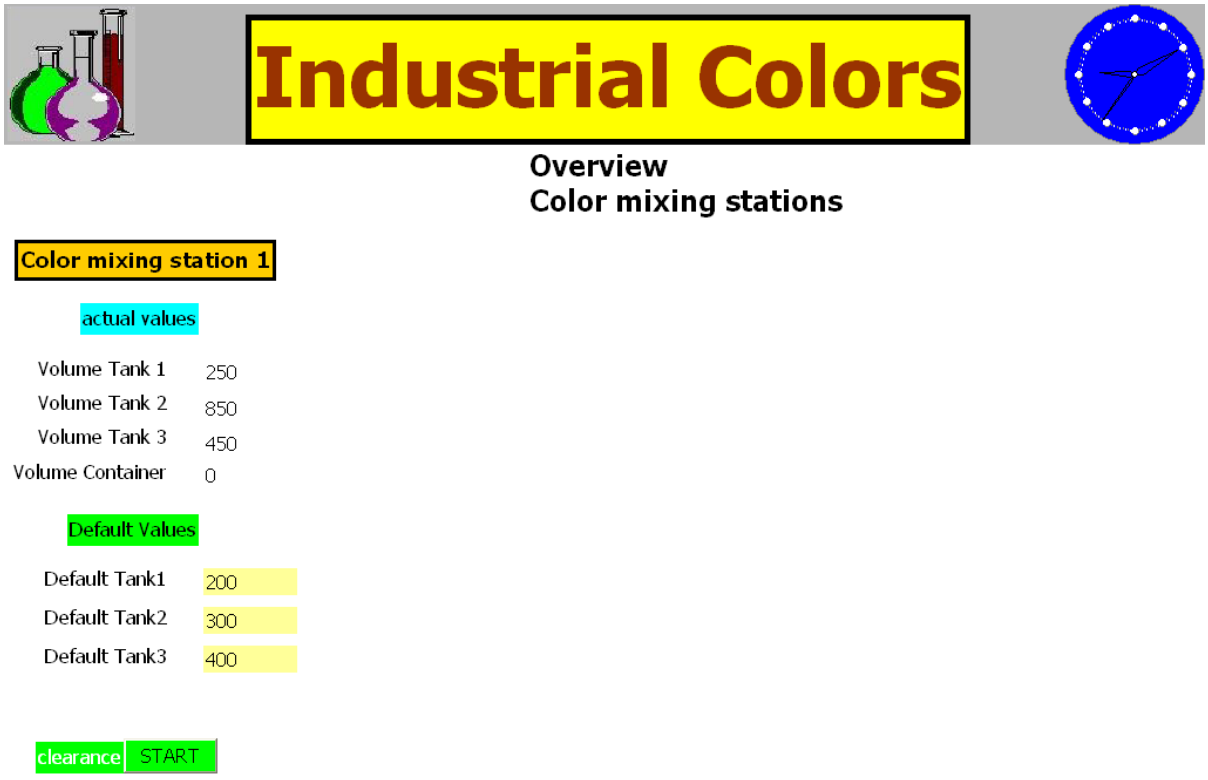
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

5.4 Starting the PC-System_Advanced in Runtime

Select **HMI_RT [WinCC RT Advanced]** and click **Start Runtime on the PC**.



Enter the default values of the three tanks and start the ink mixing station.

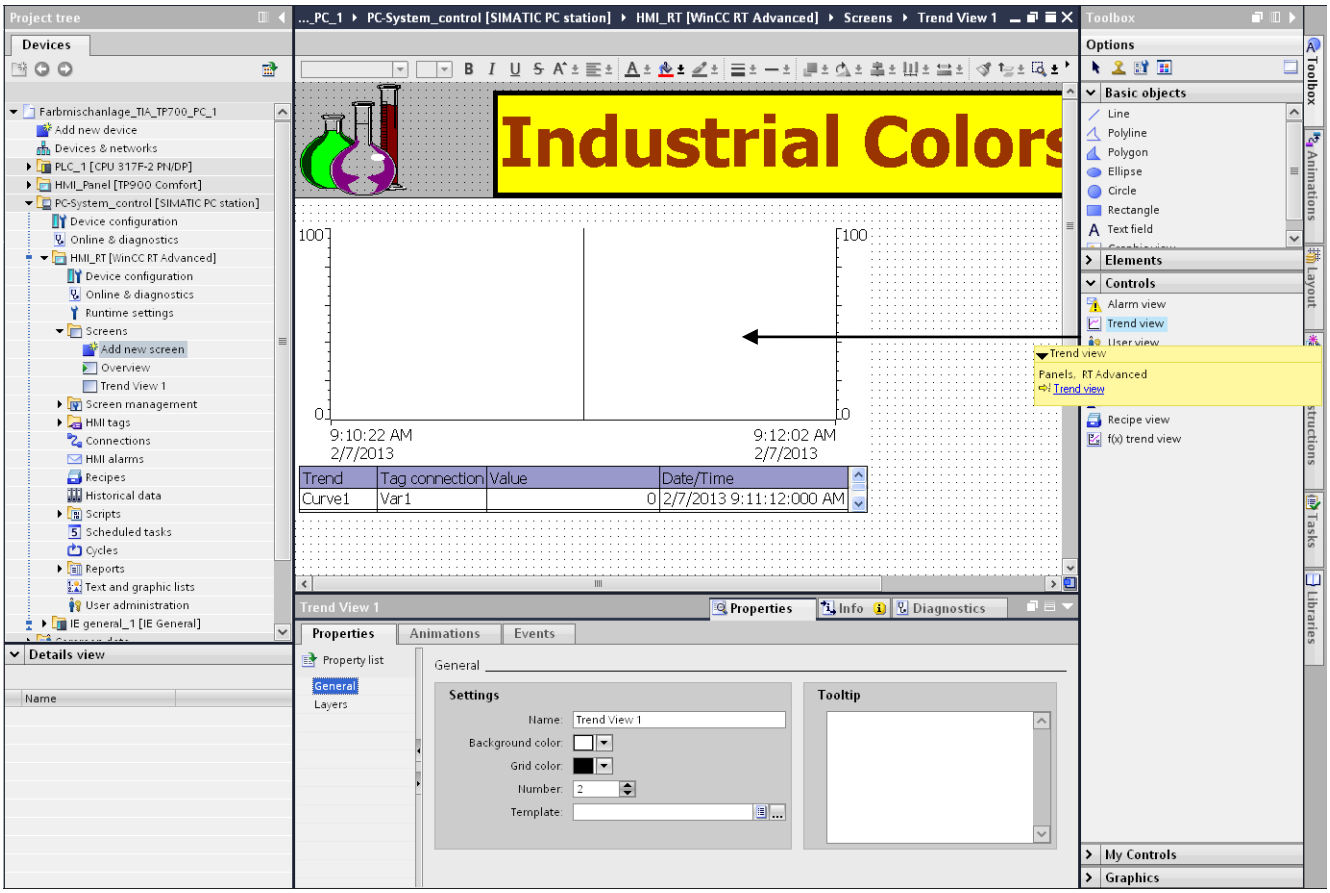


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

5.5 Trend view of the ink mixing station

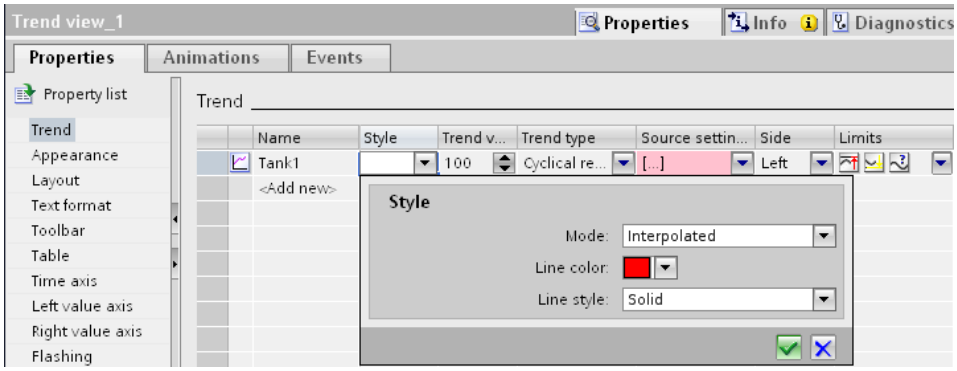
The fill-levels of the three tanks and the container are to be displayed in a trend view in the "**Trend View 1**" screen.

Create the screen "**Trend View 1**", change the background color to **white** and add a **Trend view** from the **Controls**.

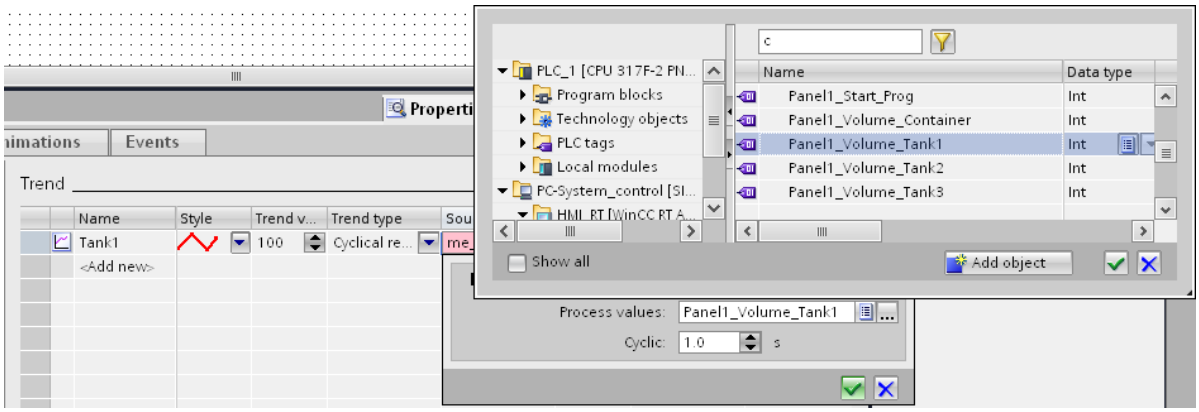


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

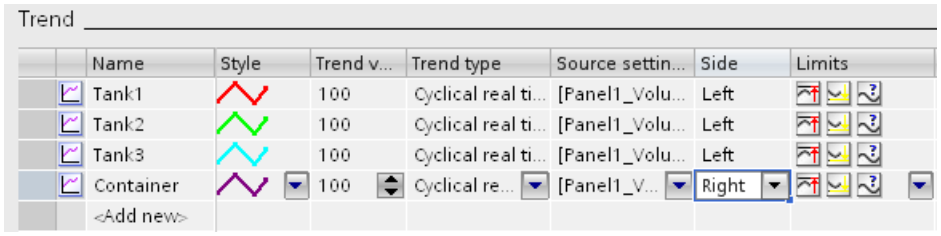
Create a new trend with name "**Tank1**" in the properties of the TrendView_1.
Under **Style**, select the line color **red**.



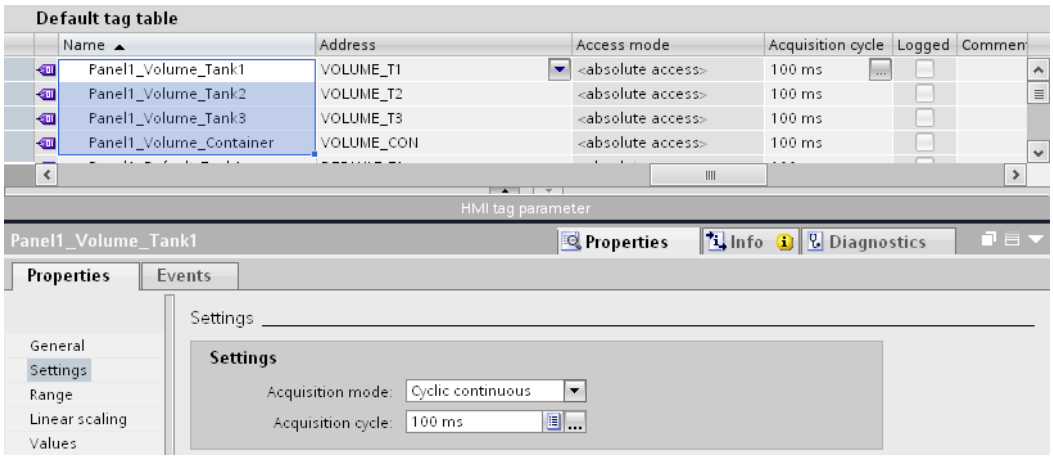
Under **Source settings**, select the tag **Panel1_volume_Tank1**.



Create the trends for Tank2 (green), Tank3 (blue) and the container (purple).
The scale assignment of the trend of the container is on the **Right**.

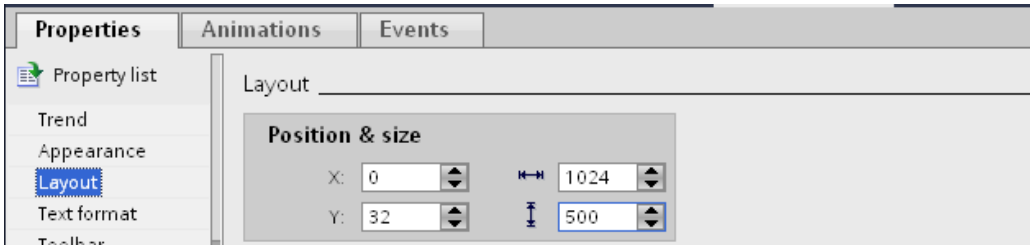


Set the four tags of the trend view to **Cyclic continuous**.

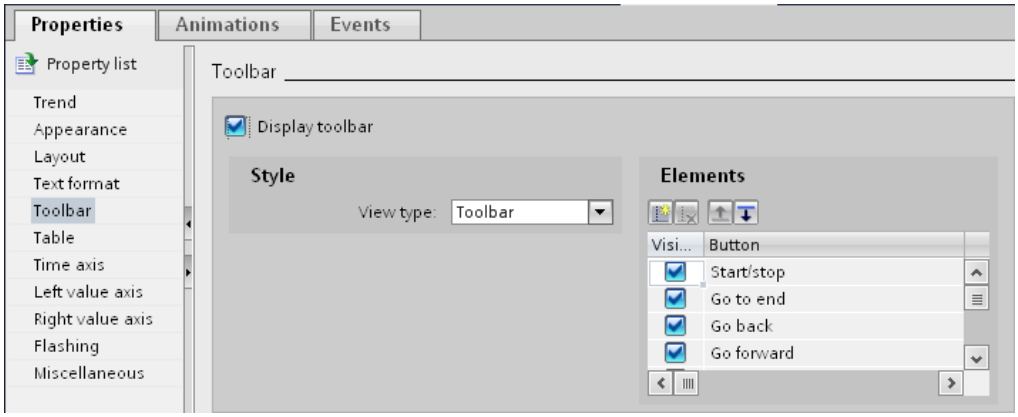


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

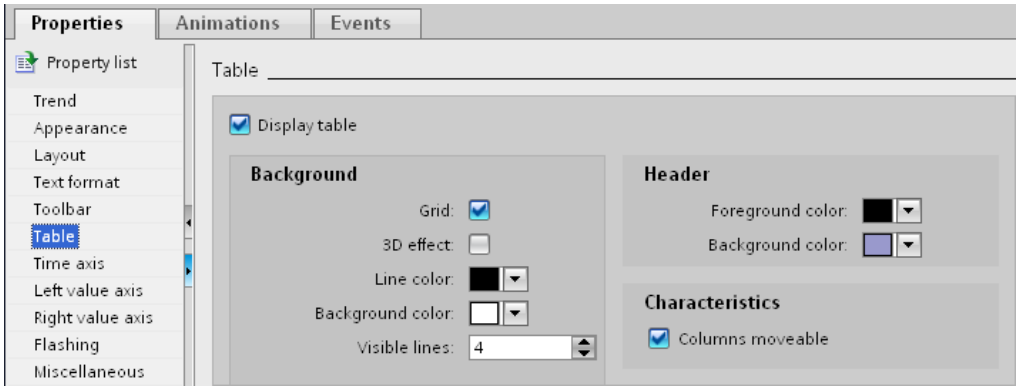
In **Layout**, change the **Position & size.**



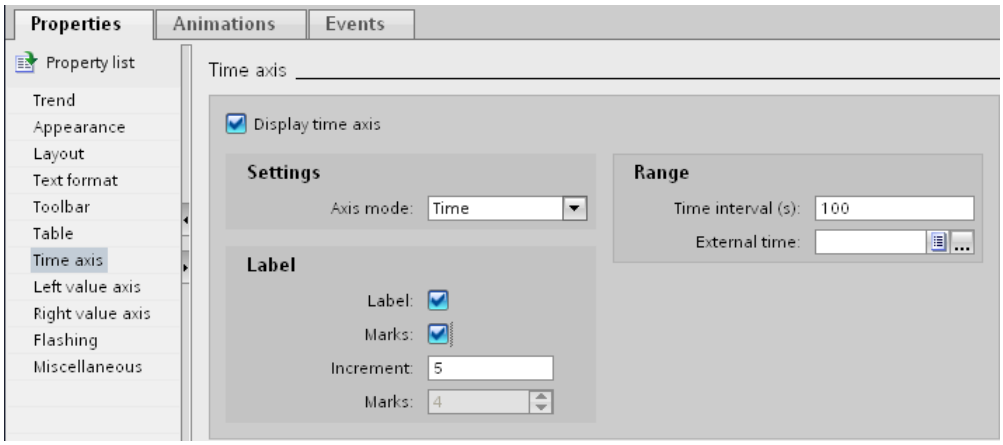
Select the option **Display toolbar.**



Under **Table**, change Visible lines to **4.**

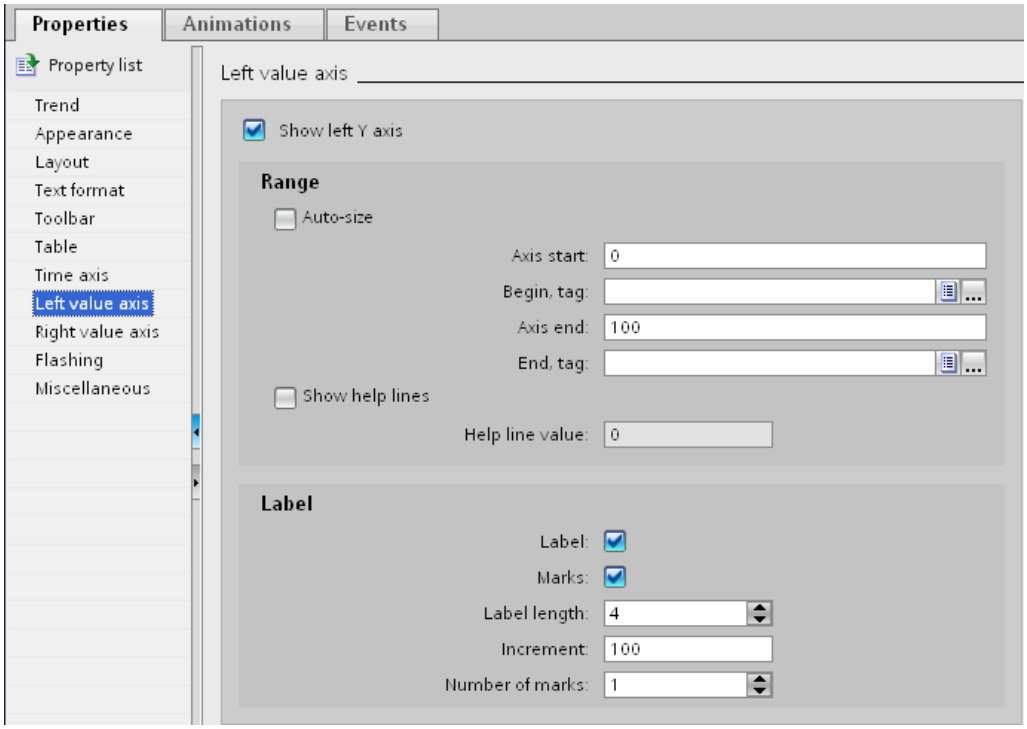


Under **Time axis**, select the option **Marks.**

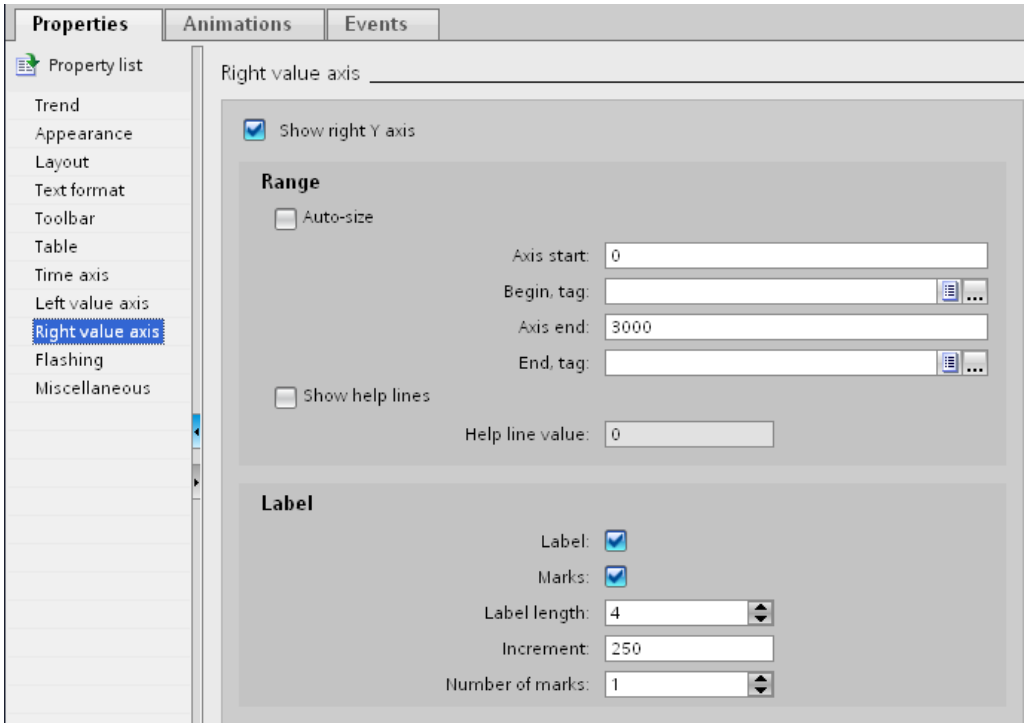


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Change the properties of **Left value axis**.



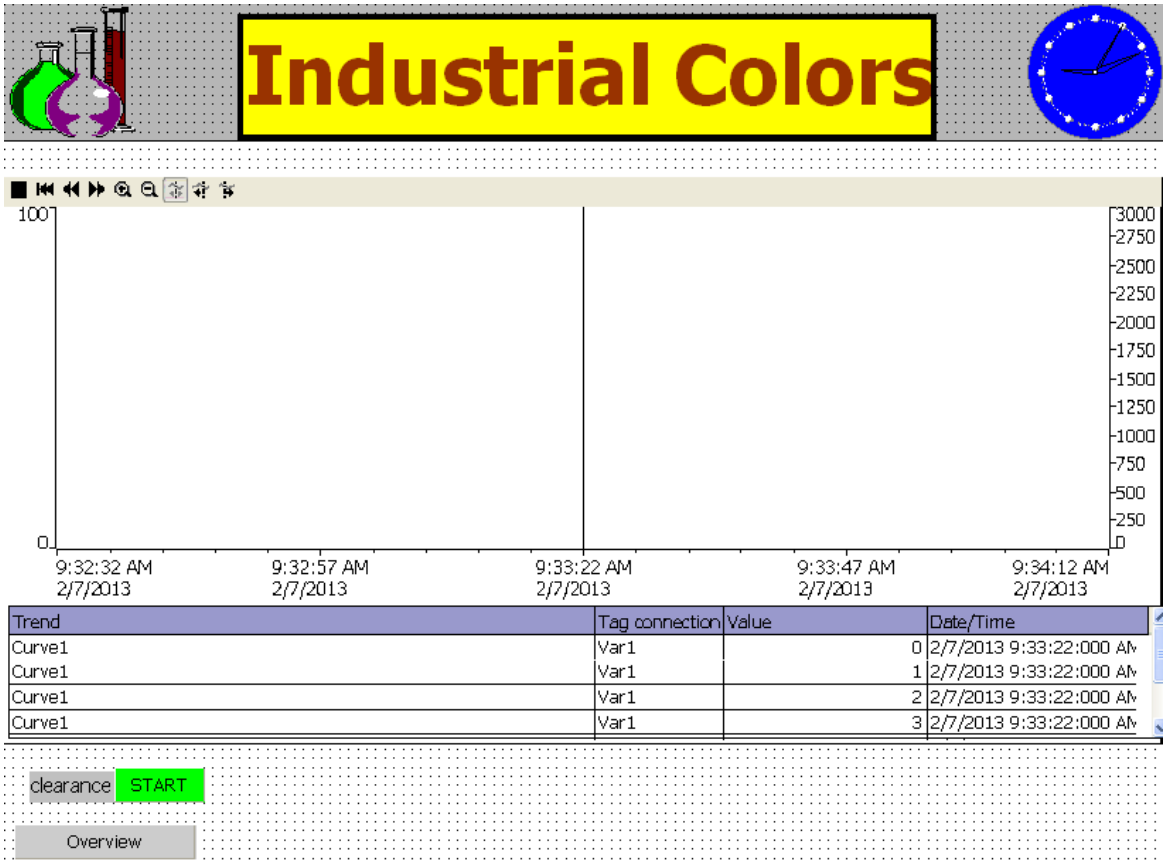
Change the properties of **Right value axis**.

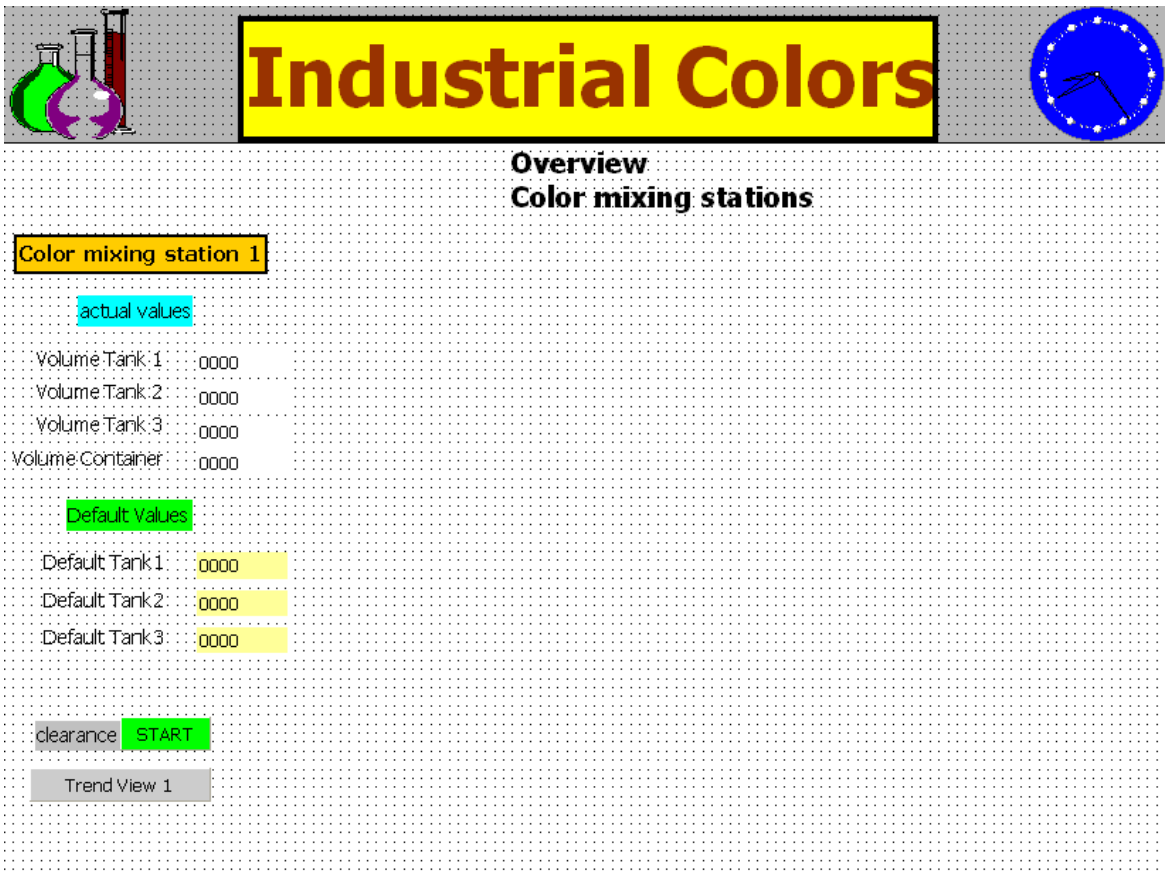


Save the project.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Copy and paste the text block **Enable start function**
and the **Start button** from the overview screen. Create the buttons for the screen selection.
Save the project.

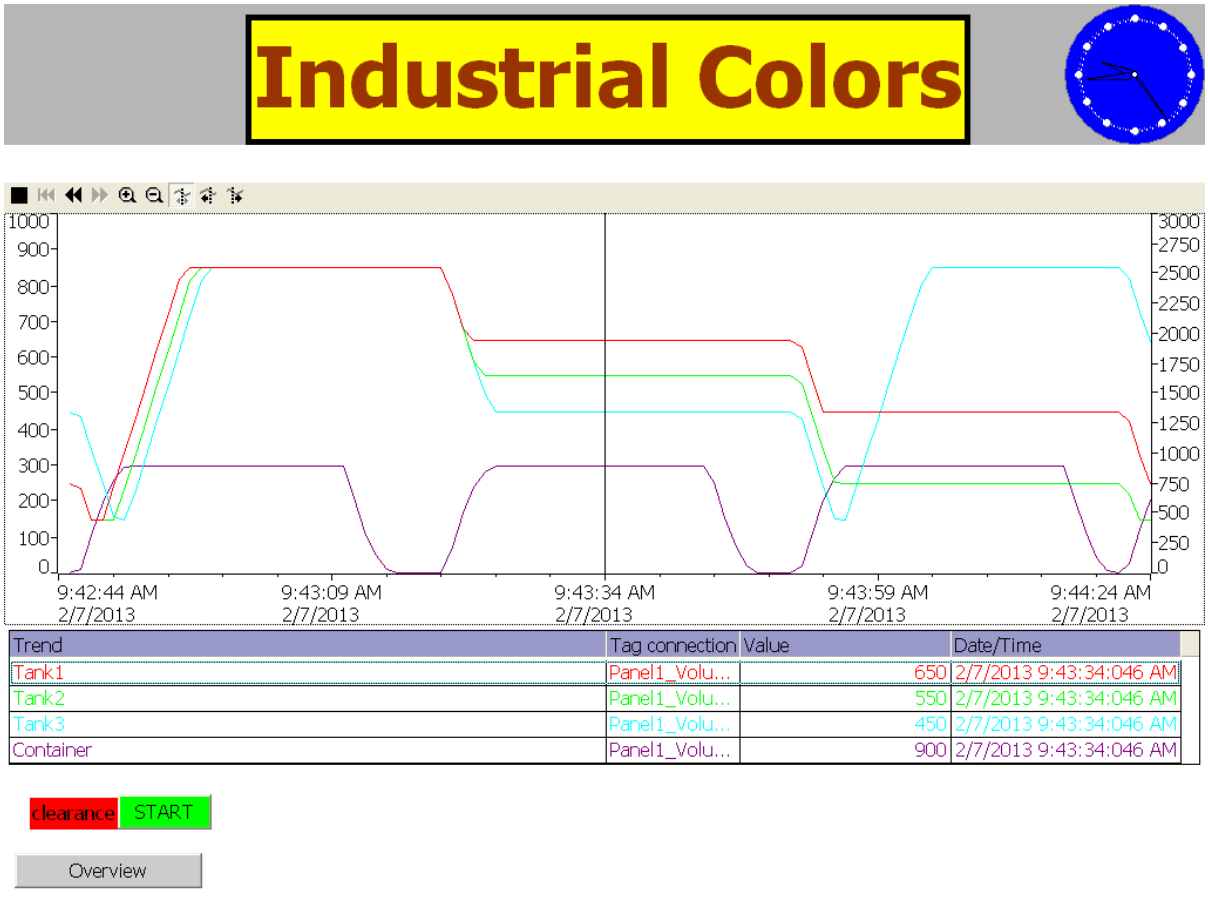




To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

5.6 Trend view in runtime

The current fill levels are displayed in the trend view.
The values of the ruler position are displayed in the table.
The toolbar buttons can be used to edit the view.



To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

6. Remote Control of the TP700 Comfort with Sm@rtOptions

The Sm@rtOptions enable access from HMI device or PC to a remote HMI device via Ethernet.

The Sm@rtServer (remote operation) is available for Comfort Panels, Mobile Panels, and Multi Panels Remote operation of the TP700 Comfort is possible with the Sm@rtServer service.

Requirements

- The "Sm@rtServer" license key is available on the server HMI device.
- The two HMI devices are connected with each other via a TCP/IP capable network.
- "Sm@rtServer" is activated for the "Services in Runtime" in the WinCC project of the Server-HMI device.

Depending on the type of implementation, additional requirements may apply.

Implementing remote access

The Sm@rtServer supports remote monitoring and remote control on the remote device (server).

Remote monitoring and remote control can be implemented in various ways on the local device (client):

- By means of Internet Explorer
- By means of the Sm@rtClient application

Access via HTML pages

The Sm@rt Options enable access for remote control with Microsoft Internet Explorer and by means of the server's integrated HTML pages.

Security concept for the Sm@rtServer

Remote monitoring and remote control of the Sm@rtServers from the Sm@rtClient is protected by two passwords. The second password is used as an additional password for additional access, for example, as a service password. Both passwords are preset to "100".
The password can be easily changed, if necessary.

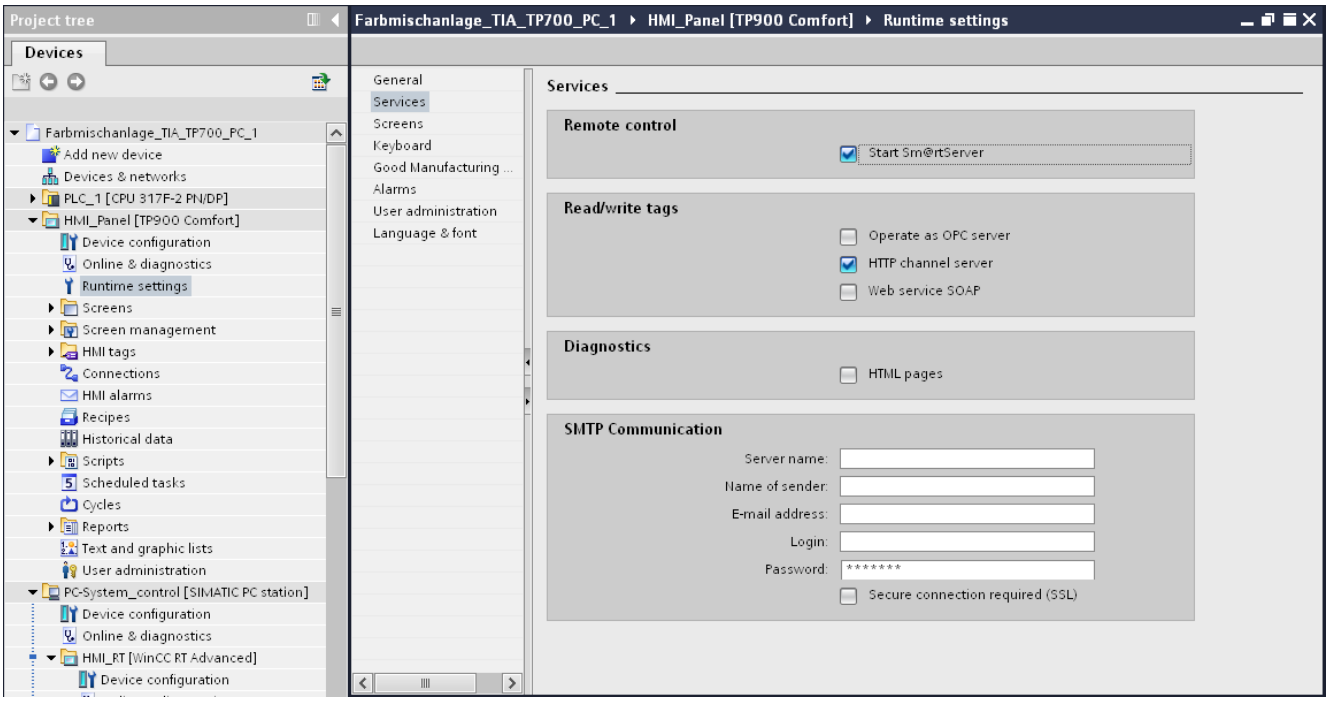
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

6.1 "Sm@rtServer" Runtime Service

Setting up "Sm@rtServer" Runtime Service on the HMI_Panel [TP700 Comfort]

In **Runtime settings** on the HMI_Panel, start **Sm@rtServer** at Services.

Save the project and load the modified settings to the HMI_Panel.

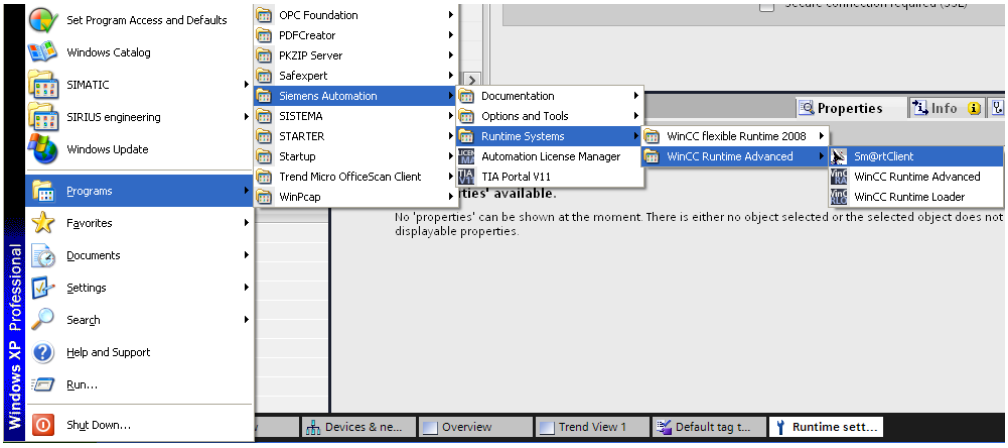


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

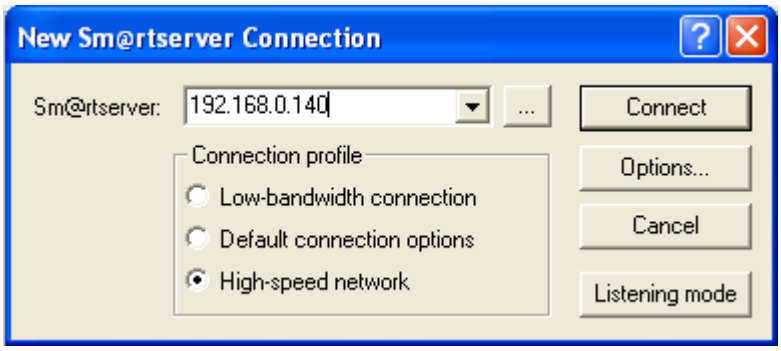
6.2 Sm@rtClient application on the PC

Remote monitoring and remote control can be started on the local device (client) via the Sm@rtClient application.

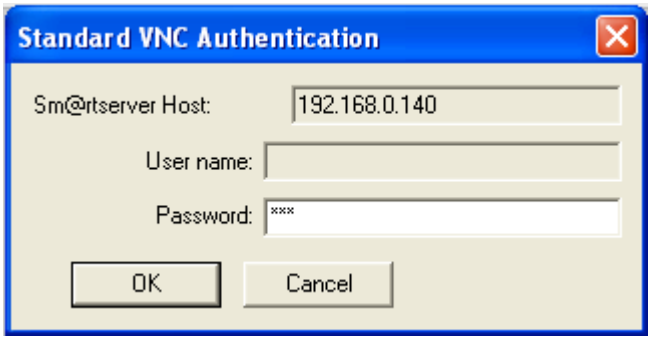
Start the Sm@rtClient program using the taskbar.



Enter the IP address of the panel and click Connect.



Enter the password **100** and click OK.

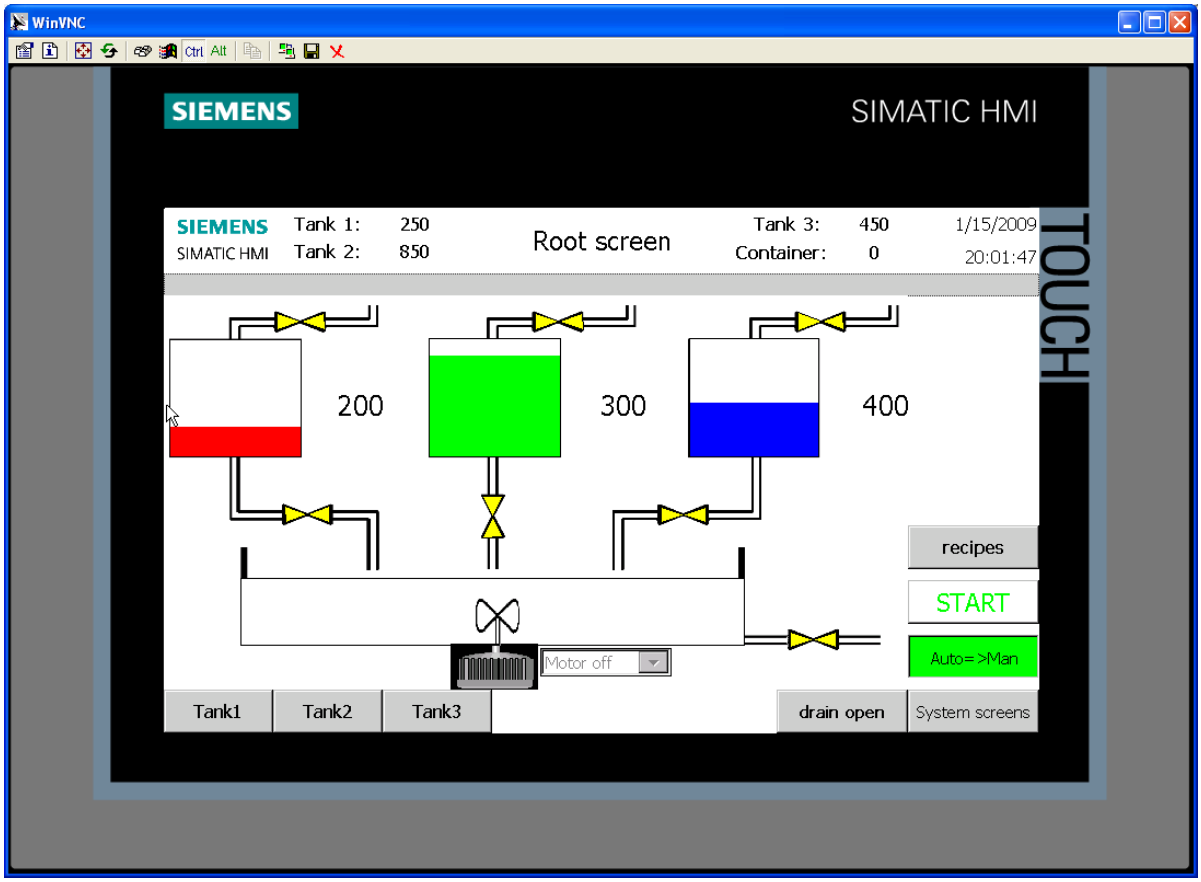


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

The view of the Panel opens on the PC.

You can remotely control the panel of the ink mixing station from the PC.

A toolbar for additional functions is available at the top.

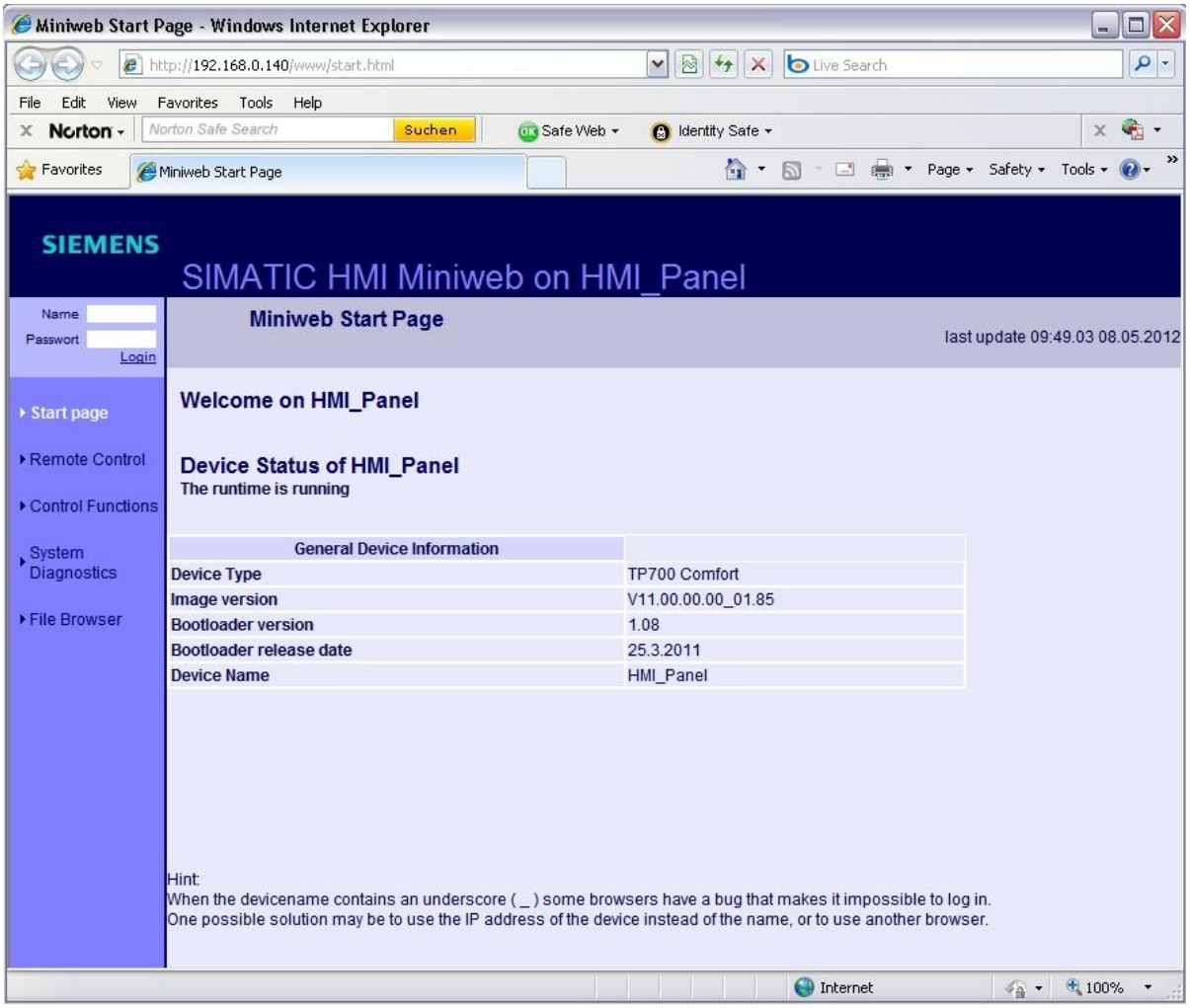


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

6.3 Sm@rtClient via Web browser

Remote monitoring and remote control can be started on the local device (client) via the Sm@rtClient application.

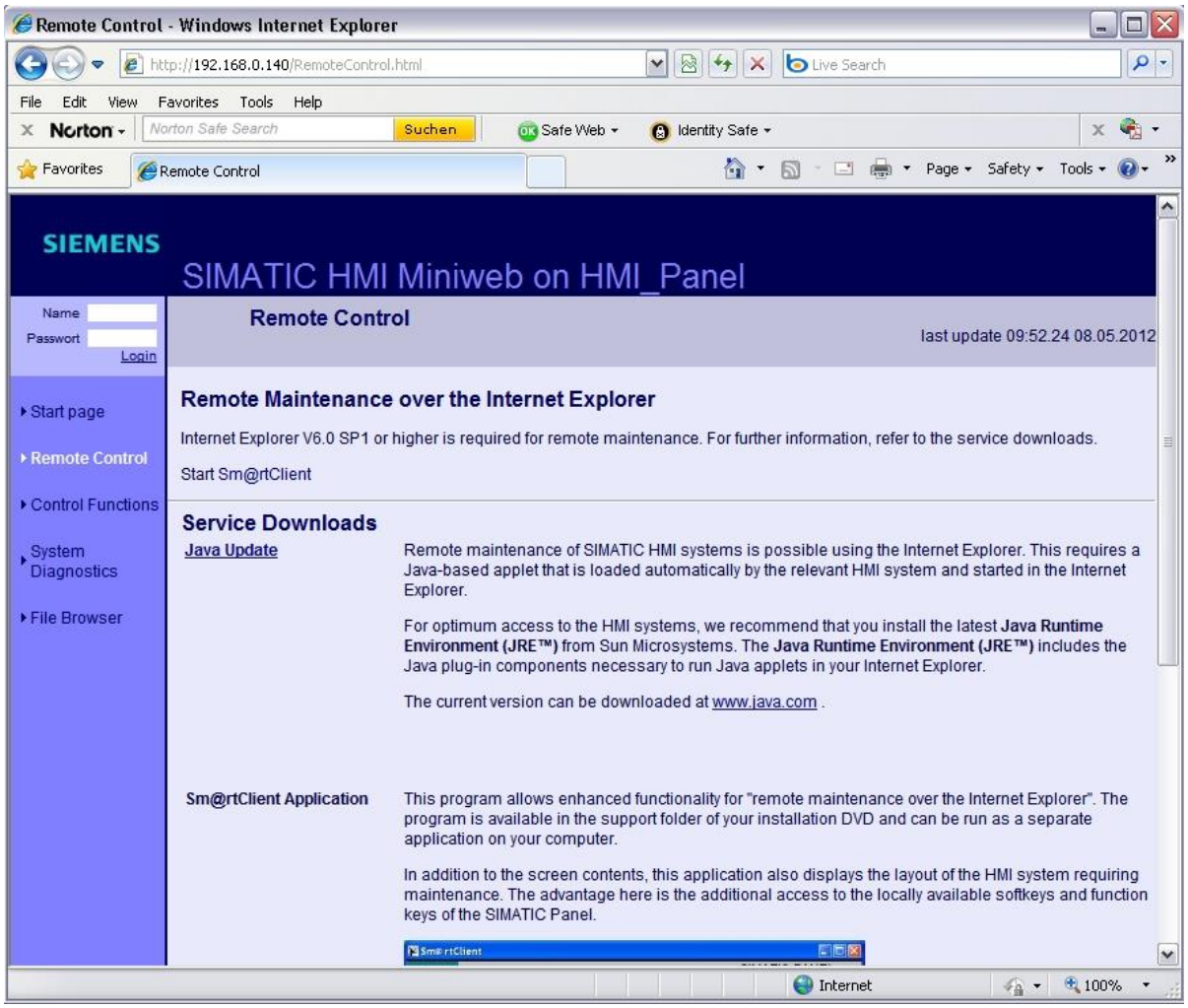
Start via the **Internet Explorer browser** and enter the IP address of the panel.



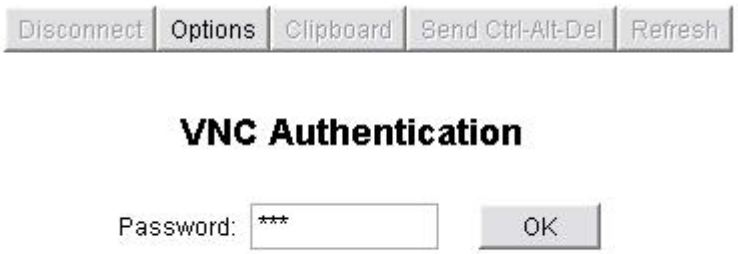
Click **Remote Control**.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

Click **Start Sm@rtClient**.


Remote Control - Windows Internet Explorer
http://192.168.0.140/RemoteControl.html
Live Search
File Edit View Favorites Tools Help
Norton
Norton Safe Search
Suchen
Safe Web
Identity Safe
Favorites
Remote Control
Page
Safety
Tools
SIEMENS
SIMATIC HMI Miniweb on HMI_Panel
Name
Password
Login
Start page
Remote Control
Control Functions
System Diagnostics
File Browser
Remote Control
last update 09:52.24 08.05.2012
Remote Maintenance over the Internet Explorer
Internet Explorer V6.0 SP1 or higher is required for remote maintenance. For further information, refer to the service downloads.
Start Sm@rtClient
Service Downloads
Java Update
Remote maintenance of SIMATIC HMI systems is possible using the Internet Explorer. This requires a Java-based applet that is loaded automatically by the relevant HMI system and started in the Internet Explorer.
For optimum access to the HMI systems, we recommend that you install the latest Java Runtime Environment (JRE™) from Sun Microsystems. The Java Runtime Environment (JRE™) includes the Java plug-in components necessary to run Java applets in your Internet Explorer.
The current version can be downloaded at www.java.com .
Sm@rtClient Application
This program allows enhanced functionality for "remote maintenance over the Internet Explorer". The program is available in the support folder of your installation DVD and can be run as a separate application on your computer.
In addition to the screen contents, this application also displays the layout of the HMI system requiring maintenance. The advantage here is the additional access to the locally available softkeys and function keys of the SIMATIC Panel.
Internet
100%

Enter the password **100** and click OK.

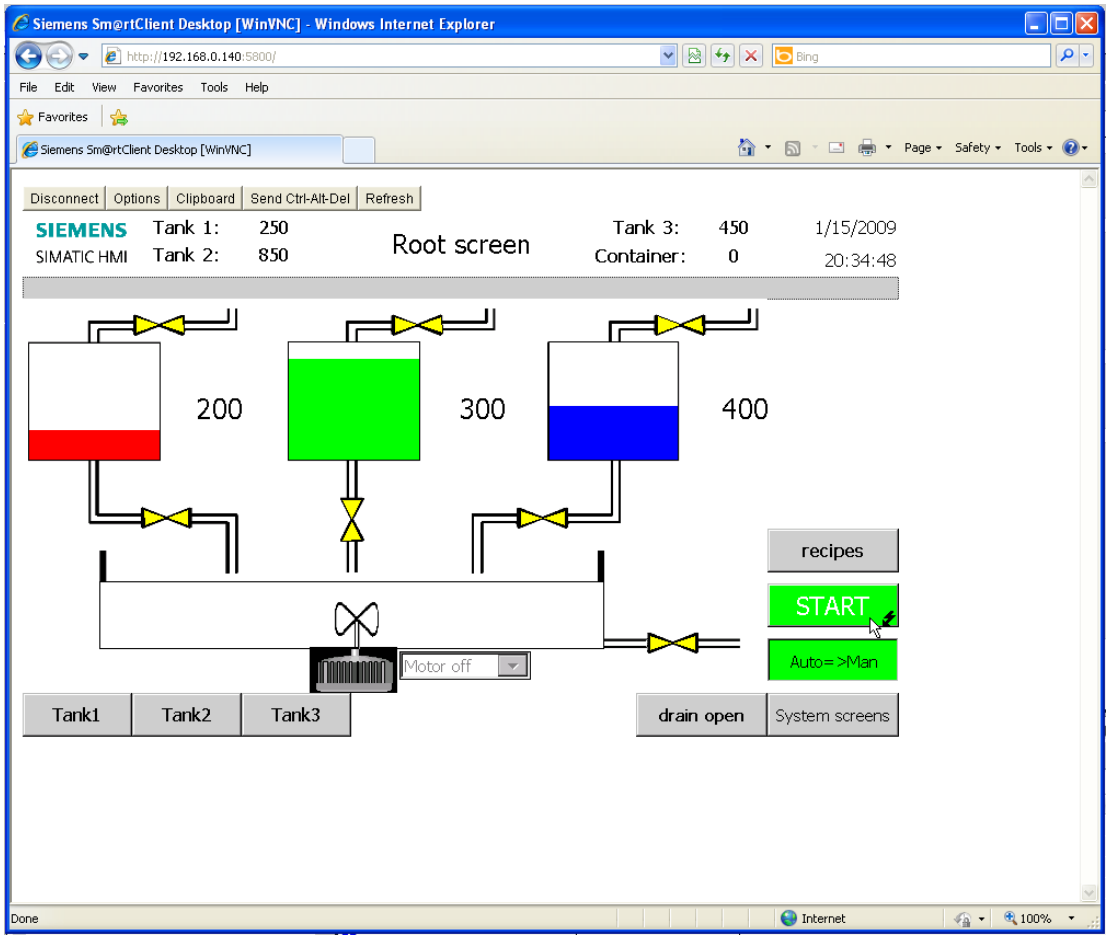


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

The view of the Panel opens via Internet Explorer.

You can remotely control the panel of the ink mixing station from the PC.

Buttons for additional functions are available at the top.

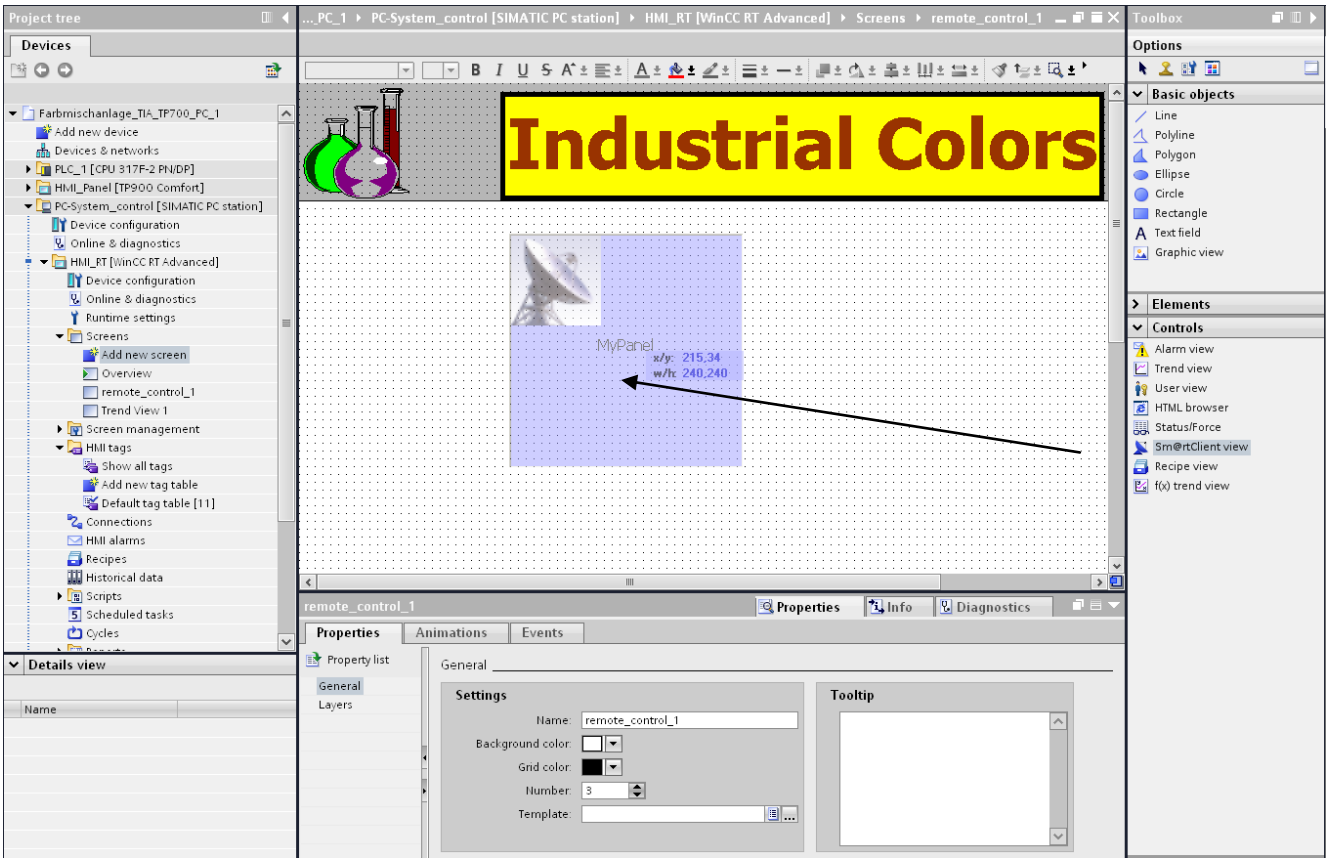


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

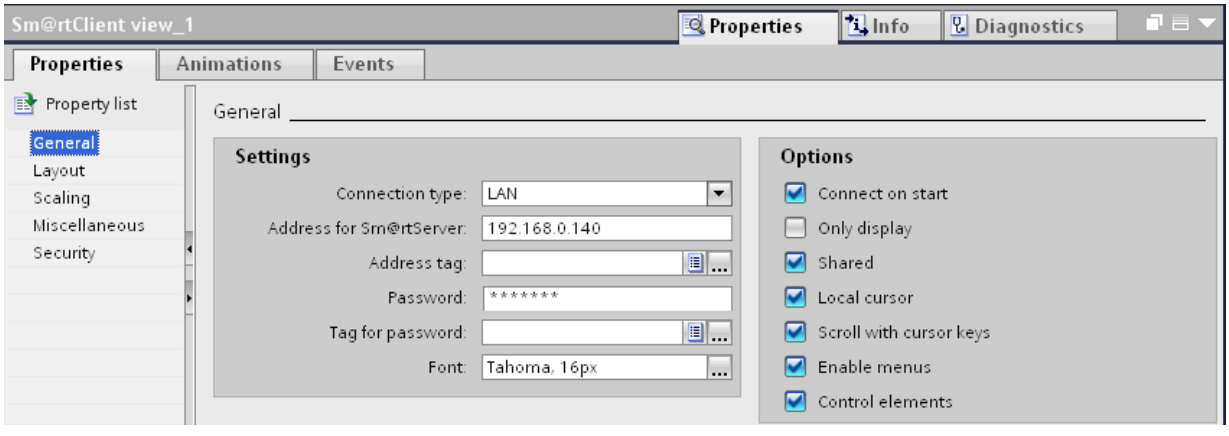
7. Sm@art Options on the Operator_PC-System

7.1 Configuring the Sm@rtClient view

Create the screen "**remote_control_1**", change the background color to **white** and add a **Sm@rtClient view** from the **Controls**.

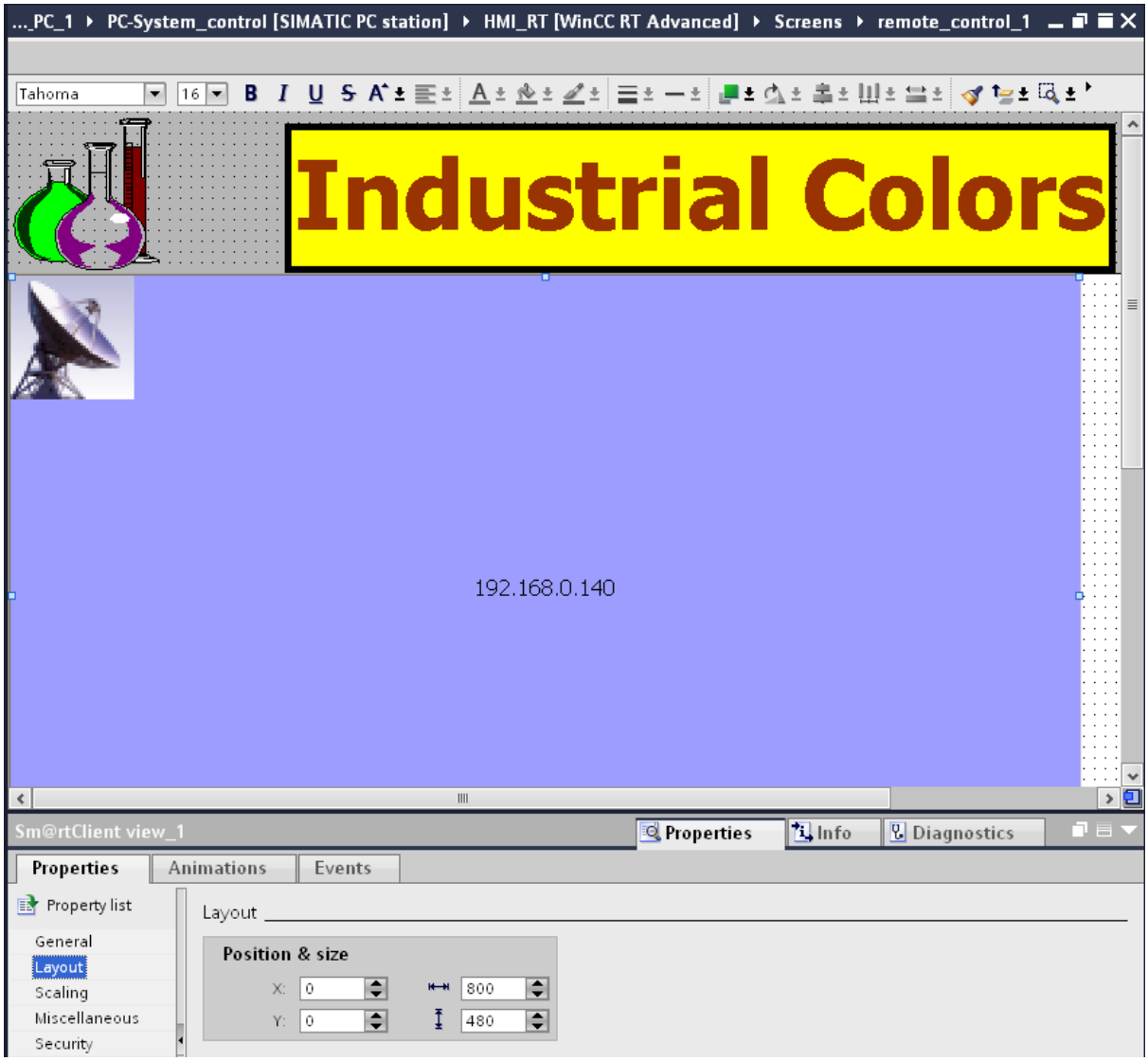


Enter the IP address of the Panel **192.168.0.140** and the password **100** in the properties of the Sm@rtClient-View_1.

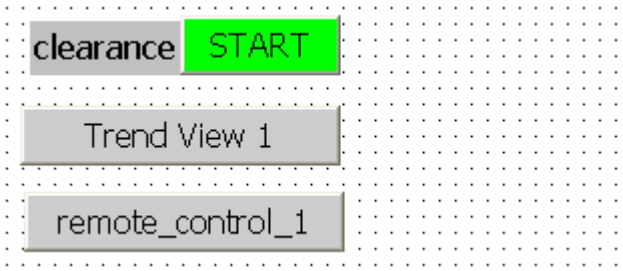


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

In **Layout**, change the **Position & size.**



Create the buttons for the screen selection.

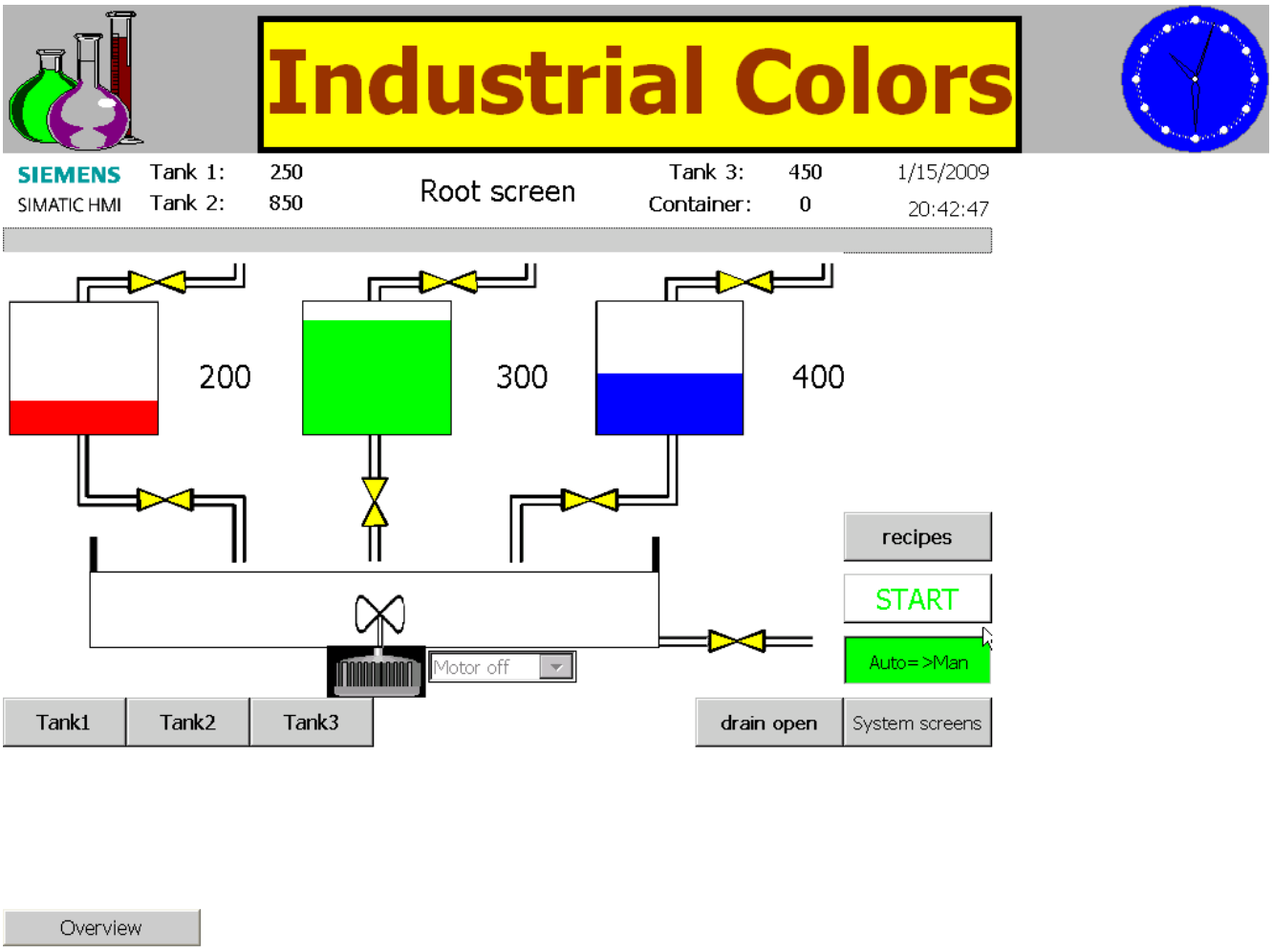


Save the project.

To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

7.2 Sm@artClient view in Runtime

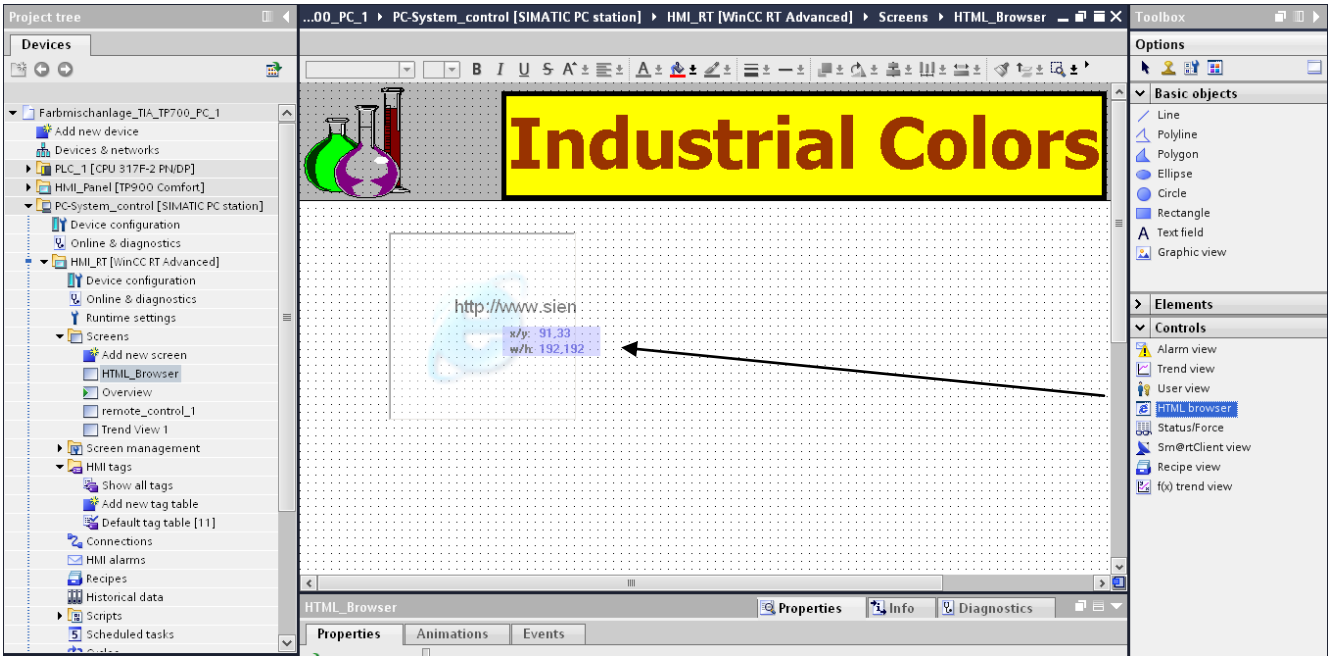
You can remotely control the panel of the ink mixing station using the operator screen.



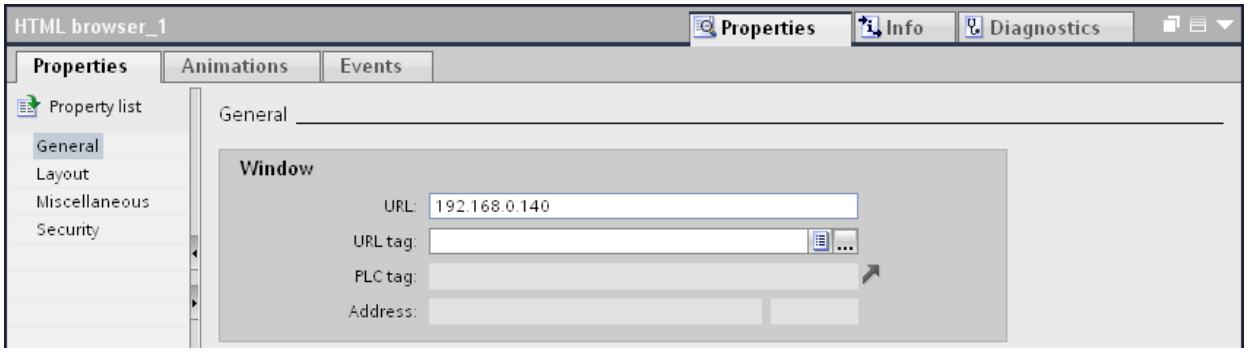
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

7.3 Configuring the HTML browser

Create the screen "**HTML_Browser_1**", change the background color to **white** and add a **HTML_Browser** from the **Controls**.

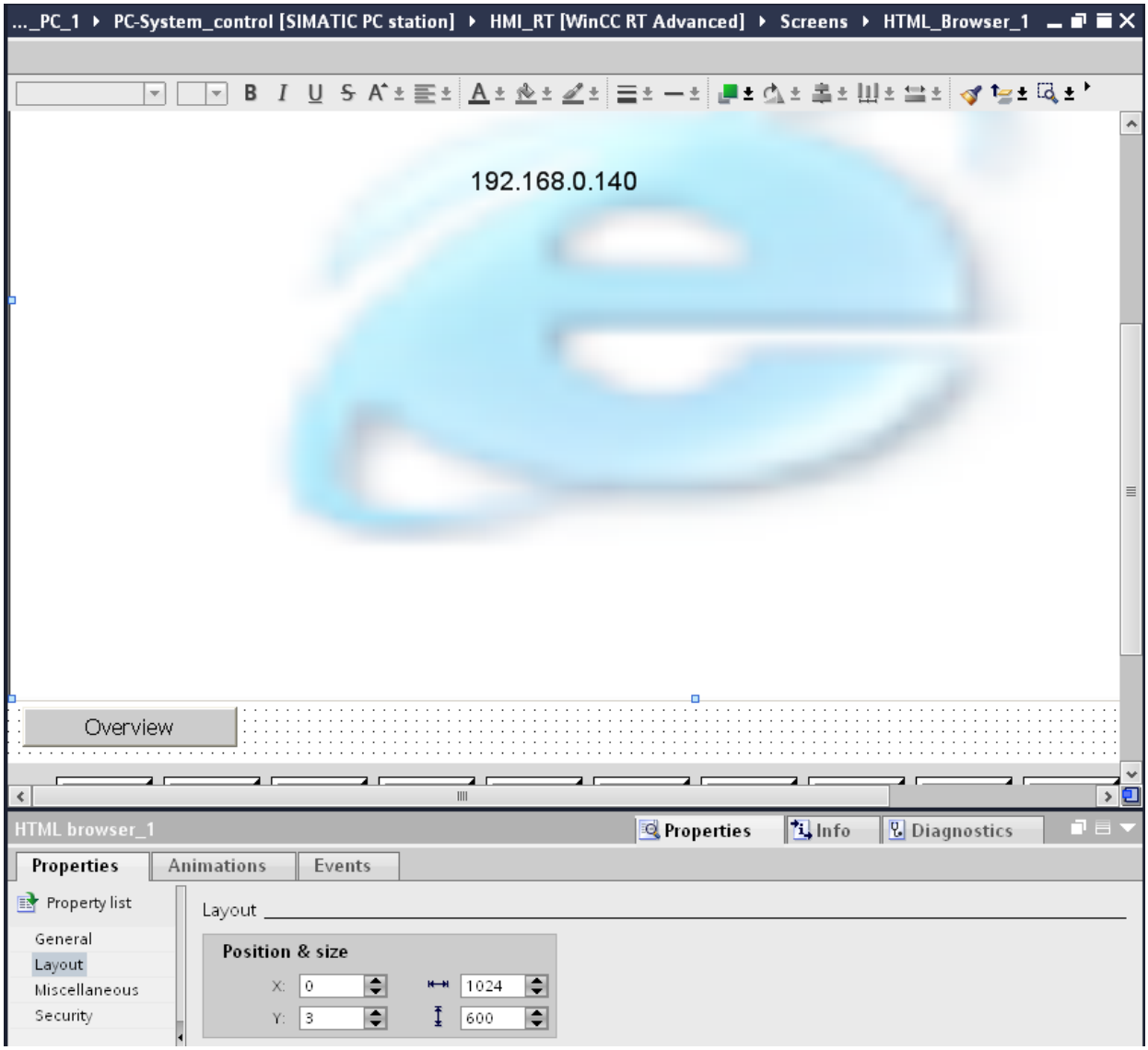


Enter the IP address of the Panel **192.168.0.140** in the properties of the HTML-Browser_1.

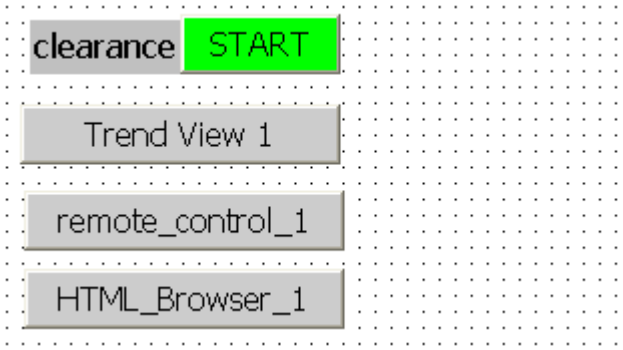


To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

In **Layout**, change the **Position & size.**



Create the buttons for the screen selection.



Save the project.

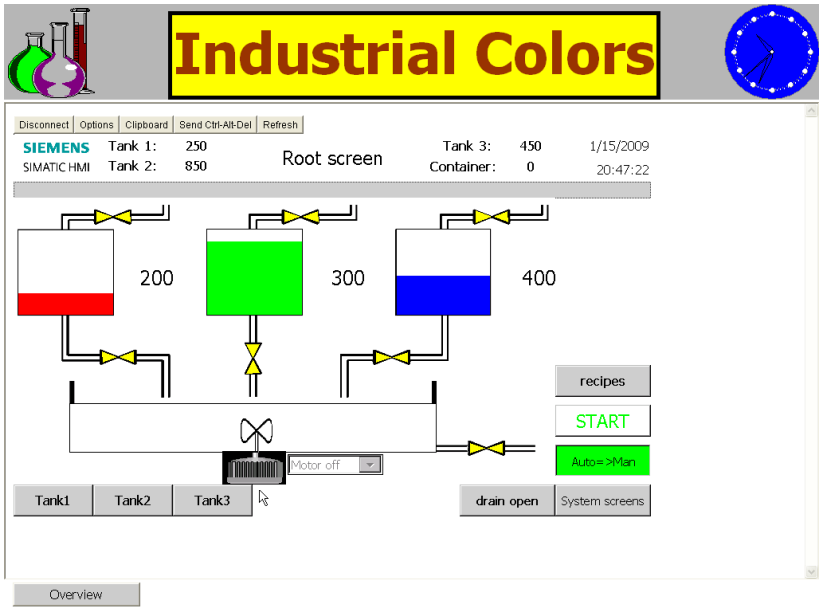
To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved

7.4 HTML browser in Runtime

The HTML page of the panel is opened.

Industrial Colors
SIEMENS
SIMATIC HMI Miniweb on HMI_Panel
Name
Passwort
Login
Start page
Remote Control
Control Functions
System Diagnostics
File Browser
Miniweb Start Page
last update 10:55.11 08.05.2012
Welcome on HMI_Panel
Device Status of HMI_Panel
The runtime is running
General Device Information
Device Type TP700 Comfort
Image version V11.00.00.00_01.85
Bootloader version 1.08
Bootloader release date 25.3.2011
Device Name HMI_Panel
Hint:
When the devicename contains an underscore (_) some browsers have a bug that makes it impossible to log in.
One possible solution may be to use the IP address of the device instead of the name, or to use another browser.
Übersicht

You can remotely control the panel of the ink mixing station using the HTML browser.



To be used only at Educational and R&D Facilities
Unrestricted / © Siemens AG 2013. All Rights Reserved